CUMULATIVE AUTHOR INDEX

Numbers 1 through 24

A

Abati, A., 2998
Abeles, R. H., 8338
Abelson, J., 8245
Abernethy, J. L., 1837
Aboderin, A. A., 2507
Abou-Issa, H., 4166
Abuchowski, A., 3578, 3582
Acar, J., 2319
Ackers, G. K., 74, 82, 88
Ackrell, B. A. C., 1582, 6963
Adachi, K., 1829
Adams, E., 7591, 7979, 7987
Adams, W. B., 3911
Adelberg, E. A., 7101
Adler, J., 3214
Adlersberg, M., 2846
Adya, S., 2026
Afolayan, A., 3745
Agin, P. P., 2121
Aisen, P., 6090
Aiyappa, P. S., 1745
Ajiro, K., 166, 173
Åkesson, B., 471, 1002, 5175
Albers, R. W., 2450
Alberts, A., 3934
Alberts, A. W., 6846
Alberts, B., 2734
Alden, R. A., 8875
Alfano, J., 2855
Allende, C. C., 4662
Allende, J. E., 4662
Allerhand, A., 1786, 1795, 4968
Allfrey, V. G., 7307
Allison, D. P., 5916
Allison, R. D., 6046
Aloj, S. M., 7967
Alpert, B. N., 7555
Alvares, A. P., 6373
Alvares, F. L., 8404
Alving, C. R., 797
Amemiya, K., 4157
Ammon, H. L., 5599
Anchors, J. M., 7035
Andersen, J. M., 3646, 3652
Andersen, K. B., 4151
Anderson, C. M., 4494
Anderson, D. R., 6617
Anderson, H. J., 1293
Anderson, J. S., 3460, 3466
Anderson, W. F., 4494, 5556
Andersson, L. C., 5888
Ando, S., 6247
Anfinsen, C. B., 6585
Ankel, H., 6707, 8013
Anterasian, G. P., 6974
Antonini, E., 7447
Aogaichi, T., 2702
Aoyagi, S., 2560, 2566
Apirion, D., 3064
Arbogast, B. W., 8863
Arendes, J., 3836
Arens, M., 7940, 7947
Arfin, S. M., 6695
Arias, I. M., 2710
Arima, K., 6245
Arion, W. J., 8512
Armitage, I. M., 7053
Armstrong, A., 1264
Armstrong, J. B., 3105, 3112, 3117
Arnold, H.-H., 6521
Arnon, D. I., 7453, 7461
Aronson, D. L., 3587
Arzadon, L., 1141, 3945
Asakura, T., 1829, 7475
Ascenzi, P., 7447
Ascoli, M., 5274, 5280
Ashby, B., 1869
Ashwell, G., 6536, 8624
Assimacopoulos-Jeannet, F. D., 2662
Astier, H., 6799
Atassi, M. Z., 8784
Atger, M., 5412
Atkinson, D., 7288
Atlas, S. A., 4712
Attardi, G., 1702
Aune, K. C., 2113, 4514
Austen, B. M., 8142, 8160, 8174, 8182
Austen, K. F., 518, 7074
Austin, S. M., 7894
Autor, A. P., 3509
Avioli, L. V., 4145
Awad, A. B., 6624
Axelsson, I., 1971
Azzi, A., 5061

B

Babalola, A. O. G., 2796
Babior, B. M., 5004
Babitch, J. A., 3862
Bach, J.-F., 8040, 8045
Bachmann, F. W., 3729
Bachur, N. R., 2670, 2961, 2967
Badwey, J. A., 2441
Baglioni, C., 4007
Bailey, G. S., 2218, 5708
Bailly, A., 858
Baird, B. A., 4743
Bajaj, S. P., 492, 4758
Baker, H. J., 5244, 8428
Baker, R. M., 3561
Balasubramaniam, S., 1771
Baldassare, J. J., 8797
Ballas, L., 8512
Ballou, C. E., 2459
Ballou, D. P., 3199, 4431
Banaszak, L. J., 7992
Bancroft, F. C., 3870
Bandyopadhyay, A. K., 5883, 7783
Banerjee, R. K., 6700
Banerjee, S. K., 6925
Banerjee, S. P., 7444
Banis, R. J., 5740
Bank, A., 2182
Bañuelos, M., 6394
Bárány, K., 4752
Bárány, M., 4752
Barbarash, G. R., 7992
Barbeau, D. L., 6745, 8634, 9082
Barber, B. H., 3141
Bardalaye, P. C., 2584
Barker, H. A., 20
Barker, J. E., 1908
Barker, K. L., 3709
Barnard, G. F., 8965
Barnett, P., 7200
Barondes, S. H., 6026
Barrett, J. M., 4533
Barrieux, A., 392, 3843
Barritt, G. J., 5372
Bartnicki-Garcia, S., 3338
Bashford, C. L., 8459
Batts-Young, B., 3952
Bauer, C., 2952
Bauer, W., 291
Baues, R. J., 57
Baughn, R. L., 7168
Baulieu, E.-E., 4607
Baur, R., 4125, 4134
Beach, R. L., 2702
Beale, E. G., 6322
Beavo, J. A., 2691
Bechtel, P. J., 1441, 2691
Becker, G. W., 8684
Becker, M. A., 3911, 3919
Becvar, J. E., 803
Bedard, D. L., 2592
Beetlestone, J. G., 2796
Beguinot, F., 7967
Beinert, H., 8440
Beirne, O. R., 950
Bell, G. I., 3082, 8118, 8126, 8772
Bell, R. M., 1167, 3050, 4487
Bendure, D. W., 1840
Bengis, C., 4564
Benisek, W. F., 6151
Benitez, J. G., 8423
Benjamin, D. C., 4521
Benjamini, E., 4888
Benjamins, J. A., 4025
Benne, R., 5798
Bennett, C. D., 6846, 6871
Bennett, V., 2753
Bentle, L. A.,1431
Benz, E. J., Jr., 1908
Benziman, M., 2940
Beppu, T., 6245
Beranek, W. E., 2356
Berenson, G. S., 4831
Berg, R. A., 8391
Berger, R. L., 2331
Berggård, I., 8048
Berglund, L., 613, 5175, 6108
Berkner, K. L., 3176, 3185
Berman, M., 7909
Berman, M. C., 994
Bernert, J. T., Jr., 6736
Bernstein, I. A., 2127
Besch, H. R., Jr., 2787, 3315, 7905
Bettinger, G. E., 4118
Bhanot, O. S., 2551, 2560, 2566
Bhattacharyya, B., 1134
Bhattacharyya, S. N., 1172
Bhavanandan, V. P., 8609
Bhushana Rao, K. S. P., 7788
Bianchetti, R., 2519
Bieber, L. L., 7930
Bieth, J., 5931
Billiau, A., 5934
Bilofsky, H., 6609
Biltonen, R. L., 5761
Bina-Stein, M., 8310
Binder, A., 8747
Bing, D. H., 8027
Birken, S., 5386
Birktoft, J. J., 8875
Birnbaum, M. J., 528
Bishop, R. J., 8118
Björntorp, P., 8833
Black, P. H., 6256
Blackburn, P., 5904
Blackmore, P. F., 2662
Blair, S., 3267
Blakesley, R. W., 7300
Blatti, S. P., 1092
Blattner, F. R., 7344, 7355
Bleile, D. M., 755
Blobstein, S. H., 2992
Bloch, K., 5381, 5735, 5740, 5745
Bloj, B., 1613
Blostein, R., 3035, 8772
Blough, R., 3422
Blouquit, Y., 8045
Bludeau, P., 6169, 9081
Blum, H. E., 2834
Blum, J. J., 1589, 3402
Blumberg, W. E., 574, 3637
Blume, A. J., 3766
Blumenstock, F., 7156
Blumenthal, K. M., 3328
Boches, F. S., 5363
Bodaness, R. S., 8554
Boffa, L. C., 7307
Boguslawski, G., 4337
Bohlken, D. P., 1464
Bohnert, J. L., 125
Boland, R., 318
Bolden, A., 3351
Bolla, R., 721
Bollon, A. P., 6562, 9082
Boman, B. M., 4298
Bonaventura, C., 406
Bonaventura, J., 406
Bonewald, L. F., 3697
Boobis, A. R., 4712
Booth, F. W., 416
Boreisha, I. G., 3945
Borgeat, P., 8772
Borisy, G. G., 377
Bornstein, P., 955
Borowitz, M. J., 1589, 3402
Borum, P. R., 5651
Borun, T. W., 166, 173
Bosch, L., 4435
Bose, S., 6585, 8336
Bostian, K. A., 9010
Bothwell, M. A., 8532
Bouillon, R., 2515
Bouma, B. N., 6432
Bouma, S. R., 6759
Boumendil-Podevin, E. F., 6675
Bourrillon, R., 1129
Bouton, M.-M., 4607
Boutry, M., 4577
Bowman, B. J., 3357
Boyer, H. W., 3987
Boyer, J. L., 8300
Boyer, P. D., 2478, 2486
Brackenbury, R., 6835, 6841
Bradić, Z., 6069
Bradley, M. O., 406, 5310
Bradshaw, R. A., 3934
Brand, L., 2163, 7500
Brändén, R., 1002
Branton, D., 2753, 5150
Brautigan, D. L., 574
Bravo, R., 4662
Breen, G. A. M., 4613
Brenckle, G. M., 8797
Brenner, M., 694, 4073
Bresciani, F., 1358
Breslow, J. L., 2726
Brew, K., 7294
Brewer, H. B., Jr., 5756
Brey, W. S., Jr., 4533
Bridgen, P. J., 6585
Bridger, W. A., 1957, 3121
Brierley, G. P., 7932
Briggs, F. N., 3262
Bright, H. J., 4361, 4464, 6631
Briles, E. B., 1107
Brillinger, G.-U., 8113
Britton, L. N., 8561
Brodersen, R., 5067
Brodie, A. F., 1084, 8229
Brodrick, J. W., 61
Bronzert, T. J., 5756
Brooker, G., 1041
Brooks, S. C., 7214
Broquist, H. P., 5651, 7437
Brostrom, C. O., 4108,

5677
Brostrom, M. A., 4108, 5677
Brot, N., 721
Brown, D. M., 8182
Brown, E. B., 4533
Brown, J. A., 7151
Brown, J. H., 7279
Brown, M., 6470
Brown, M. R., 7174, 7180
Brown, M. S., 1771, 4861
Brunori, M., 7447
Bruns, D. E., 927
Bruns, M. E. H., 4145
Brunschede, G. Y., 1771
Brunschwig, J.-P., 5565
Brunton, L. L., 1293
Brysk, M. M., 2127
Buchanan, J. M., 2304
Buckler, C. E., 6585
Bugge, B., 224, 2271
Buhler, J.-M., 8848
Bukovsky, J., 8884
Bull, C., 3128
Bunn, H. F., 3414, 5924
Bünning, P., 5316
Burchall, J. J., 2319
Burgess, A. W., 1998
Burgum, A. A., 3153
Burkart, P. T., 3371
Burke, M. D., 6424
Burke, R. L., 291
Burkey, D., 7031
Burns, A. T. H., 7913, 8310, 8320
Burtis, K. C., 9024
Burton, P. R., 6222
Bush, R. S., 2657
Buss, J. E., 851
Bustin, M., 3099, 7062
Butkowski, R. J., 4942
Butler, W. T., 639
Buttlaire, D. H., 1957
Byers, L. D., 5925
Byrne, R., 4758

C

Cabantchik, Z. I., 2419
Cahnmann, H. J., 6076
Calabro, M. A., 4842
Callahan, E. N., 5847
Camakaris, J., 1998
Campbell, R. F., 5996
Campomanes, M., 3028
Candido, E. P. M., 5962
Canfield, R. E., 5386
Cannon, M. D., 4755
Cantley, L. C., Jr., 7421
Cantoni, G. L., 4506, 6962
Caplan, A. I., 6600
Caplow, M., 2101
Carey, F. G., 4098, 4102
Carithers, R. P., 7453, 7461
Carlson, G., 4619
Carmichael, D. F., 7163
Carpenter, M. R., 971, 978, 983
Carpousis, A., 2447, 8023
Carr, D. W., 1279
Carraway, K. L., 6617
Carroll, R. C., 6981
Carsten, M. E., 1576
Carter, C. W., Jr., 7802
Carver, J. P., 3141
Caskey, C. T., 4435, 4514
Caspi, E., 2797
Cássaro, C. M. F., 2254
Castañeda, E., 5692
Castellino, F. J., 492, 2175, 4758, 7725
Castillo, L., 1421
Castric, P. A., 1628
Caswell, A. H., 5565
Catt, K. J., 8869, 9002
Catterall, W. A., 8660, 8669, 8692
Caughey, W. S., 5498, 8774
Cavenee, W. K., 3272
Cecchini, G., 2675, 2680
Celma, M. L., 9032, 9043, 9047
Cerami, A., 2992, 2998
Chaiken, I. M., 5599, 6991
Chakraborty, P. R., 6485
Chakraburtty, K., 2698
Chamberlain, B. K., 4487
Chamberlin, M. J., 5403
Chambers, J., 2498
Chambers, R. W., 2551, 2560, 2566
Chan, L., 250
Chan, P. C., 8537, 8554
Chan, S. J., 7971
Chan, T. M., 8645
Chan, W. W.-C., 6163
Chang, C. K., 4225
Chang, L. M. S., 1873
Chang, T., 1505, 1515
Chang, Y. F., 7979, 7987
Chappell, M. R., 2684
Chasteen, N. D., 5996
Chatterjee, A. N., 4118
Chávez, E., 7932
Cheema-Dhadli, S., 5661
Chen, C.-C., 5216
Chen, C.-L., 6783
Chen, H. W., 409, 8975
Chen, J., 4242
Chen, J.-s., 6651, 6655
Chen, L. A., 2163, 7500
Chen, R. H. K., 5206
Chen, S., 8990
Chen, W. W., 3473
Cheng, S.-Y., 6076, 8713
Cheng, T., 1758
Cheng, Y.-C., 5686, 7697
Chetirkin, P., 1127
Cheung, W. Y., 4872
Chevion, M., 3637
Chiang, P. K., 4506, 6962
Chiao, J.-P., 1490, 1500
Chien, J. C. W., 1327, 1331, 6156
Chien, W.-S., 7894
Chignell, C. F., 7648
Childers, R. F., 1786
Chirgwin, J. M., 7391
Chiu, C.-S., 6031, 8603
Chiu, T.-C., 3862
Chlebowski, J. F., 7042, 7053
Choc, M. G., 5498, 8774
Cho-Chung, Y. S., 6335, 6342, 6349, 9081
Choi, Y. R., 7930
Chou, C.-K., 2855
Chou, I.-N., 6256
Chou, T.-C., 6438
Chowdhury, J. R., 2710
Choy, P. C., 7673
Christen, P., 609 5835
Christmann, J. L., 8320
Christner, P., 2447
Chu, L., 3035, 8772
Chua, B. H., 6711, 7548
Chuang, D.-M., 8365
Chuang, D. T., 1257
Chuang, J., 1071
Chulavatnatol, M., 8088
Chumbler, F., 1965, 4015
Chung, B. H., 5258, 7530
Chung, J., 4202
Churchich, J. E., 8081
Cierniewski, C., 8917
Cifone, M., 3561
Cigorraga, S., 9002
Clair, T., 6335, 6342, 6349, 9081
Clarke, P. R. H., 7930
Claycomb, W. C., 2161
Clayton, D. A., 7888
Cleland, R. L., 420
Cleveland, D. W., 1102
Clifton, D., 4443
Clowes, A. W., 2726
Coan, C. R., 3044
Coffee, C. J., 563, 1606
Cohen, A., 4428
Cohen, G. N., 7685
Cohen, P. P., 4276
Cohen-Solal, M., 5019, 5032
Cohn, D. V., 8261
Cohn, M., 1957, 2004, 3344, 4418, 6245
Cohn, M. S., 8212
Cole, E. R., 3729
Cole, R. D., 794, 2630, 4068
Cole, R. S., 7023
Coleman, J. E., 7053
Coleman, P. F., 6379
Coleman, R., 3050
Coles, C. J., 6963, 8035
Collatz, E., 3961, 9071
Collins, J. H., 6356
Collins, J. M., 141, 4762
Colman, R. F., 3671
Colman, R. W., 3310
Colson, A.-M., 5716
Cone, J. E., 5337
Conley, R. R., 6367
Conn, P. M., 308
Conney, A. H., 6328
Conrad, G. W., 6861
Conrad, H. E., 8292
Conrad, R., 6069
Conta, B. S., 7640
Conti, M., 8869
Cook, G. A., 4421, 6581
Cook, G. H., 687
Cook, P. F., 3459
Coomes, M. L., 4431
Coon, M. J., 3255, 4431
Cooper, A. D., 5186
Cooper, A. J. L., 2032
Cooper, D. Y., 4755
Cooper, T. G., 7738
Corbin, J. D., 910, 3854, 4269
Cordaro, J. C., 7862
Cordes, E. H., 8071
Corley, L., 6585
Cortese, F., 1134
Cory, M., 8027
Costa, E., 3848, 8365
Costantino, P., 1702
Costrejean, J.-M., 5332
Cotman, C. W., 786
Cottam, G. L., 7468
Coty, W. A., 308
Coudrier, E., 2039
Coulet, P. R., 7919
Courvalin, J.-C., 4607
Cox, D. F., 8908
Cox, D J., 8105
Cox, J. R., 6948, 6955
Cox, S. L., 6464
Coyle, P., 563
Cozzarelli, N. R., 1732, 3987
Cramer, W. A., 5491, 5875
Craven, P. A., 5804
Crawford, P. A., 6521
Cronan, J. E., Jr., 5488
Crossman, M. W., 5815
Crosti, P., 2519
Crouch, R. J., 4092
Crumley, J., 1051
Csonka, L. N., 3382, 3392
Curthoys, N. P., 1927
Cutler, C. J., 3194
Czech, M. P., 6554, 8341
Czichi, U., 7901

D

Daddona, P. E., 110
Dahlman, D. L., 3679
Dale, R. E., 2163, 7500
Daniel, W. E., Jr., 4418
Dardenne, M., 8040, 8045
Darke, P. L., 4958
Darlix, J.-L., 8935
Das, M., 1316
Das, S. K., 8700, 8708
Dasgupta, S., 5916
Datko, A. H., 3436
Dautry-Varsat, A., 7685
Davidson, B., 1264
Davidson, E. A., 8609
Davie, J. R., 5962
Davies, P. L., 1386
Davis, A., 6544
Davis, C. W., 4078
Davis, F. F., 3578, 3582
Davis, J. L., 6617
Davis, J. N., 5472, 5478
Dawson, G., 2777
Dayan, J., 2846
Dazord, A., 1515
Dean, W. L., 3255, 3551
De, B. K., 6715
de Barry, J., 6112
Deckelbaum, R. J., 744, 4701
Decker, S. J., 5936
de Crombrugghe, B., 3538
Dedman, J. R., 2437, 5609, 6322, 8415
Deeley, R. G., 7913, 8310, 8320
Deems, R. A., 2405, 6011
DeFranco, A. L., 4682
Degani, Y., 8150
DeGennaro, L. J., 8118, 8126
Deguchi, T., 596, 7617
de Haas, G. H., 1189, 2948
Deibel, M. R., Jr., 8235, 8240
Deibler, G. E., 1723
Deitrich, R. A., 6169, 9081
de Jonge, H. R., 2780
del Rio, R. M., 5337
DeLuca, H. F., 1421, 2580, 4501
De Luca, L. M., 2575
De Luca, S., 6600
DeMartino, G. N., 7511
de Mata, Z. S., 4215
Dème, D., 3281
de Meis, L., 8567
Demma, L. S., 1226
De Moor, P., 2515
DeMoss, J. A., 1696
Den, H., 5444
Denis, J., 7678
Dennis, E. A., 2405, 6011
DeRubertis, F. R., 5804
Desai, R., 4175
Desai, S. M., 4935
Deshmukh, D. S., 5864
Deshpande, A. K., 6521
Desnuelle, P., 4313, 4319
De Somer, P., 5934
DeTraglia, M. C., 3493
Deutsch, H. F., 555
Deutschman, C. S., 3128
Devare, S., 7818
de Waal, D. J. A., 4038
Dezelee, S., 8935
Dhar, R., 333, 340, 355, 368
Dickerson, R. E., 759, 776, 4619
Dickinson, L. C., 1327, 1331, 6156
Dietrich, C. P., 2254
Dietschy, J. M., 3646, 3652
Dignam, J. D., 437
DiLauro, R., 3538
Dills, W. L., Jr., 4269, 4287
DiMaio, D. C., 6208
Dimicoli, J.-L., 5931
Dixon, G. H., 1386, 8062
Dixon, J. E., 7163
Dockter, M. E., 8333
Dodgson, J. B., 7300
Doebber, T. W., 7511

Doi, R. H., 9024
Dolby, T. W., 166, 173
Dolnick, B. J., 7697
Donohue, A. M., 6846
Donohue, M., 3399
Dorfman, A., 4777
Dorson, J., 1840
Døskeland, S. O., 677
Douglas, M. G., 8333
Downer, N. W., 8092, 8101
Downing, M. R., 4942
Downs, J., 5262
Drabikowski, W., 7440
Drew, H. D., 8423
Drewes, L. R., 2187
Drickamer, L. K., 6909
Drislane, F. W., 6759
Drury, E. J., 1117
Dubied, A., 1464
Dubourdieu, M., 1453
Dubrow, R., 1527, 1539
Duerre, J. A., 5977, 5981
Dufau, M. L., 8869, 9002
Duggan, P. F., 1620
Duggleby, R. G., 8150
Dukein, D., 955
Dunker, A. K., 6253
Dunlap, R. B., 6139
Dunn, M. F., 3493
Dunnett, J., 1950
Dworkin, M., 864, 5175
Dworschack, R. T., 1654
Dziewiatkowski, D. D., 6470

E

Eagon, P. K., 2372
Ebel, R. E., 4431
Ebner, E., 671
Ebner, K. E., 2082, 2089
Echols, H., 6177
Edelhoch, H., 1129, 3684, 8719
Edelman, G. M., 6835, 6841
Edelman, I. S., 2458
Edelstein, C., 8634
Edgington, T. S., 8917
Edmond, J., 1057, 5222
Edmondson, D. E., 8035
Edson, C. M., 7000
Edwards, P. A., 644, 1057
Edy, V. G., 5934
Egan, R. M., 5701
Egawa, K., 5419
Egorin, M. J., 2967
Eguchi, Y., 5267
Ehrenberg, A., 536
Eichler, D. C., 499, 4011, 7888
Eiduson, S., 284
Eipper, B. A., 8821
Eisenberg, E., 3374
Eisman, J. A., 2580
Ekström, B., 8048
Elbein, A. D., 2026, 2444, 2498, 3057, 7431
Elder, J. H., 6510
Elion, J., 4942
Elson, C., 7548
Emdin, S. O., 602
Engasser, J.-M., 7919
Engel, L. L., 3775, 3784
Engelhardt, D., 1471
Englander, S. W., 8092, 8101
Englund, P. T., 1148, 6208
Engström, L., 613, 5175, 6108
Enoch, H. G., 5656
Epstein, W., 1394
Erbe, J., 2010
Erickson, S. K., 5186
Ericson, M. C., 7431
Ericsson, L. H., 6386
Eriksson, S., 6132
Ernest, M. J., 6783
Esfahani, M., 3194
Eskin, B., 6889
Evans, J. J., 4232
Evenberg, A., 1189
Exton, J. H., 2662, 8645
Eytan, G. D., 3208

F

Faguet, G. B., 2095
Fahien, L. A., 1250
Fahrney, D. E., 2615
Fain, J. N., 528, 7243, 8066
Fall, R. R., 3934
Fallon, A. M., 7323, 7355
Fan, W. W. J.-W., 7834
Fang, F., 2187, 3219
Fasco, M. J., 3587
Fass, S. J., 583
Fast, R., 7620
Faust, J. R., 1771, 4861
Fazal, M., 4068
Feeney, R. E., 8103
Feigelson, M., 3234
Feigelson, P., 6783
Feinberg, B. A., 574, 7743
Feldhoff, R. C., 3611, 8464
Feldman, M., 3324
Feldmann, G., 2039
Felsted, R. L., 2961, 2967
Felton, J. S., 4712
Fenton, J. W., II, 3587, 8027
Fenton, R. G., 1764
Ferguson, A. G., 5010
Ferguson, J. B., 5381
Ferguson-Miller, S., 919
Fernandez, H. N., 1826
Ferrier, L. N., 1386
Feucht, B. U., 8899
Field, J. B., 3074, 8285
Filner, P., 1858
Finch, J. E., Jr., 639
Fincher, G. B., 1402
Finkelstein, M. C., 7101
Finlayson, J. S., 3587
Fischberg, E. B., 2710
Fischer, E. H., 2834
Fischer, S. G., 1102
Fish, W. W., 5239
Fisher, P. A., 4011, 6528
Fisher, R. G., 8258
Fisher, R. R., 4552
Fishman, P. H., 797
Fiskin, A. M., 8261
Fitzgerald, V., 6363
Flanegan, J. B., 3019, 6031, 8603
Fleischer, N., 92
Fleischer, S., 3689
Fleming, J. W., 7905
Fleming, P. J., 1663, 5656
Fletterick, R. J., 4494
Flick, P. K., 4242
Fliesher, E. B., 4145
Floss, H. G., 8113
Flynn, T. J., 5864
Foard, D. E., 1099
Fogelman, A. M., 644, 1057
Fogle, P. J., 7930
Fogt, S. M., 5201
Foldes, M., 5372
Foley, J. J., 8572
Folk, J. E., 3752
Folk, W. R., 3176, 3185
Folkmanis, A., 6177
Fondy, T. P., 5575
Fong, J. C., 542
Fontenelle, L. J., 6624
Ford, K. M., 5981
Forget, B. G., 5019, 5032, 5040
Forman, H. J., 3379
Forn, J., 2764
Forsee, W. T., 2444, 2498
Forster, R. E., 3881
Fortney, J. A., 6948
Fosset, M., 6112
Foulds, J., 5911
Foury, F., 4577
Fox, J. L., 1453
Fraenkel, D. G., 3382, 4443
Frangione, B., 883
Franklin, E. C., 883
Franz, J. M., 4354
Freeman, D., 7434
Freeman, H. C., 8840
Freer, S. T., 8875
Freeze, H., 820
Frenkel, E. P., 504
Frénoy, J.-P., 1129
Fresco, J. R., 878
Frey, P. A., 4445
Frey, W. H., II, 51, 1279, 2458, 4298
Freychet, P., 148
Freytag, J. W., 3995
Fridovich, I., 6421, 6721, 7667
Friedberg, I., 4584
Frieden, C., 1869, 4546
Friedlander, E. J., 8677
Friedman, B. E., 3153
Friedman, J. M., 712
Frigeri, L., 3147
Froehner, S. C., 8589
Fromageot, P., 8848, 8935
Froshauer, S., 8804
Frot-Coutaz, J. P., 2575
Fruton, J. S., 6776
Fuchs, H. G., 8258
Fudenberg, H. H., 7192
Fudyma, G., 4210
Fuhr, B. J., 3141
Fujii, D. K., 3660
Fujikawa, M., 6682
Fujimura, R. K., 8700, 8708
Fukui, S., 963
Fukushima, K., 5750
Fukushima, M., 7000
Fulco, A. J., 3660
Fuller, C. W., 6631
Fulpius, B. W., 4811
Fung, L. W.-M., 4904
Furano, A. V., 2154
Furfine, C. S., 205
Furlong, C. E., 9055
Furlong, N. B., 522
Furth, J. J., 116, 1932
Furuichi, Y., 2815
Futai, M., 5820
Futterman, S., 3267

G

Gaastra, W., 1189
Gafford, J. T., 7431
Gagnon, J., 6386
Gahmberg, C. G., 5888
Gaito, J. M., 6222
Galante, Y. M., 3147
Gallagher, J. F., 8489
Galonsky, A., 7894
Galper, J. B., 8692
Gammeltoft, S., 602
Gammon, M., 1807
Gancedo, C., 6394
Gancedo, J.-M., 4443, 6394
Gander, J. E., 2187, 3219
Gardner, E. J., 7738
Gardner, J. H., 5925
Garrard, W. T., 4729, 4962, 8269
Gaskin, F., 6918
Gates, F. T., III, 1647, 2802
Gautheron, D. C., 7919
Gavaret, J. M., 3281
Gaylor, J. L., 5852
Geary, L. E., 3501
Gegenheimer, P., 3064
Gehring, H., 609
Geist, C. E., 1908
Gelehrter, T. D., 2900
Gelfand, D. H., 8118
Gennis, R. B., 5990, 7877, 7883
Geokas, M. C., 61
George, J. N., 712
Georgia, B., 7648
Gerard, C., 5986, 8549
Gerber, D., 8382
Geren, C. R., 2082, 2089
Geren, L. M., 2089
Gershengorn, M. C., 8713, 8719
Ghisla, S., 6729
Ghory, P. K., 1829
Ghosh, A., 6806, 6813
Ghosh, B. K., 6806, 6813
Ghosh, P. K., 340
Ghosh, R., 6813
Giacometti, G. M., 7447
Gibson, J. L., 943
Gibson, Q. H., 4098, 4102, 4225, 5783, 7538, 7955
Gielen, J. G., 7761
Gilbert, B. E., 6464
Gilbert, S. F., 7365
Gill, G. N., 6443
Gillett, D., 2218
Gilliland, G. L., 5142
Gilman, A. G., 1293, 5761, 5776, 6966
Ginsburg, H., 2419
Giovanelli, J., 3436
Girard, M., 2524
Glaser, L., 7625
Glaser, M., 6190
Glasgow, L. R., 8615
Glass, D. B., 1279
Glazer, A. N., 32, 8258
Glew, R. H., 563
Glick, J. M., 4790
Gliemann, J., 602
Glusker, J. P., 7583
Godette, G., 406
Godfrey, S., 1927
Goelz, S., 5177
Goffeau, A., 4577, 5716
Goh, E. H., 2822
Goldberg, A. L., 8350
Goldberg, M. A., 3414, 5924
Goldberg, N. D., 1279, 4298
Goldberger, R. F., 7913, 8310, 8320
Goldblatt, P. J., 5895
Goldin, S. M., 5630
Goldman, R. D., 8285
Goldsmith, L. A., 1837
Goldstein, F. W., 2319
Goldstein, I. J., 4739, 6995
Goldstein, J. L., 1771, 4861
Goldstein, R. V., 4527
Goldwasser, E., 5558
Gollub, E. G., 2846
Golovtchenko, A. M., 224
Goncher, G., 3128
Gonzalez-Gronow, M., 2175
Goodman, D. S., 5100, 5107
Goodman, H. M., 3987
Goodman, M. F., 2670
Goodman, M. N., 5054
Gopalakrishnan, T. V., 2717
Gordon, D. J., 3374, 8300
Gordon, J., 9065
Gordon, J. I., 7913, 8310, 8320
Gore, T. B., 5295
Gornall, A. G., 5227
Gorski, J. P., 1336
Gottlieb, D. I., 7625
Gotto, A. M., Jr., 2113
Gould, J. M., 5491, 5875
Gould, R. G., 5186
Gozes, I., 1819
Graff, J. C., 4185, 4191
Graham, D. G., 5729
Grahn, D., 939
Granner, D. K., 3891
Gräslund, A., 536
Graves, C. B., 6260
Graves, D. J., 4888, 5666
Gray, G. M., 4922, 4929
Gray, G. R., 57, 2470
Gray, H. B., Jr., 8740
Gray, R. H., 2127
Greaser, M. L., 6356
Green, H., 2158
Green, M., 7940, 7947
Greenberg, G. R., 3019, 6031, 8603
Greene, L. E., 1673, 1681
Greengard, P., 2764, 5155, 5164, 6494, 6588, 7132
Gregory, E. M., 755
Griffin, J. H., 2881, 6432
Griffith, O. W., 3558
Groman, E. V., 3775, 3784
Gromet-Elhanan, Z.,

8747
Groner, B., 6666
Groner, Y., 483
Gross, E., 7279
Gross, M., 3752
Grossman, L., 6280, 6287, 6294
Guengerich, F. P., 3970
Guenthner, T. M., 8981
Guha, A., 6416
Guidotti, A., 3848
Guidotti, G., 7421
Guillory, R. J., 8990
Guinovart, J. J., 444
Gupta, R. K., 3486, 5183, 5967
Gupta, R. S., 8945, 8950
Gurd, F. R. N., 2234
Gurny, P. A., 560
Guroff, G., 5859
Guthrie, C., 8245
Gutte, B., 663

H

Haase, B. A., 5828
Haber, E., 8957
Haberland, M. E., 8142, 8196
Habig, W. H., 4049
Habuchi, O., 4570
Haesungcharern, A., 8088
Haga, K., 5776
Haga, T., 5776
Hager, L. P., 7877
Haggerty, D. F., 7035
Hahne, S., 6132
Hajra, A. K., 1663
Hale, A. H., 6190
Halegoua, S., 2324
Hall, S. H., 4092
Hall, Z. W., 8589
Hallgren, P., 1014, 1023, 1034, 8833
Halling, S. M., 9024
Halperin, M. L., 3626, 5661
Halvorson, H. R., 433
Hamberg, M., 8772
Hamilton, C., 6861
Hamilton, F. D., 2984
Hamilton, J. A., 8071
Hammerman, M. R., 583, 591
Hammes, G. G., 4743
Hampton, J., 6510
Hancock, R., 4962
Handschumacher, R. E., 2072
Hanford, W. C., 6695
Haniu, M., 7081, 7089, 7093
Hankins, C. N., 235
Hanoune, J., 2039, 2784
Hansford, R. G., 1552
Hanson, R. W., 655, 8398
Hanstein, W. G., 3147
Hantgan, R. R., 1367
Hardegree, M. C., 4049
Hardesty, B., 2106
Hardgrave, J. E., 1561, 6145
Harding, J. D., 7391
Harris, L. S., 2470
Harrison, J. H., 755, 6038
Hartley, J. L., 1316
Hartley, R. W., 3252
Hartshorne, D. J., 8285
Hartsuck, J. A., 8728
Harwood, J. P., 8869
Harvey, R. J., 2319
Hascall, V. C., 3617, 6600
Hassan, H. M., 7667
Hasselbach, W., 1938, 1950
Hassid, A., 2101, 6591
Hasson, M. A., 3617
Hastings, J. W., 803, 5150
Hatefi, Y., 3147
Hathaway, D. R., 2787
Havell, E. A., 4425
Hawkins, R. A., 4421
Hay, D. I., 1689
Hayaishi, O., 890, 2206, 2648, 2774, 3548, 4413, 4637, 4643, 5871, 7000
Hayflick, L., 406
Haynes, E., 6861
Healy, M. J., 8840
Heaney-Kieras, J., 4326
Heard, P. M., 4305
Heath, E. C., 2372, 2918
Heaton, J. H., 2900
Hechtman, R., 5251
Heckle, W. L., Jr., 1764
Heifetz, A., 3057
Heimberg, M., 2822
Heindell, H. C., 3446
Heinegård, D., 1971, 1980, 6600
Heinrikson, R. L., 4913
Held, W. A., 8489
Hélène, C., 244
Heller, J., 5216
Heller, R., 950
Helting, T. B., 187, 194
Hemmelgarn, E., 4379
Hemmerich, P., 5612
Henderson, G. B., 3760
Henderson, P. A., 8423
Hendrickson, W. A., 3012
Henes, J. B., 6776
Henkin, J., 4293
Henner, D., 1932
Henning, D., 3814
Henry, H. L., 8677
Henry, J.-P., 3548
Heppel, L. A., 4584
Hermans, J., 6184
Hermodson, M., 6276
Hermodson, M. A., 5135
Herridge, P. L., 1829
Herscovics, A., 224, 2271
Hersh, L. B., 4796
Hershey, J. W. B., 5798
Hershfield, M. S., 6002
Hervé, G., 2881
Heyneker, H. L., 3987
Hickey, E. D., 4007
Hickman, J., 8336
Hickman, S., 4402
Hidalgo, C., 8446
Hill, D. F., 2218
Hill, H. D., Jr., 3791, 3799
Hill, R. L., 1837, 2338, 2346, 2356, 2363, 3791, 3799, 8615, 8624
Hille, R., 403
Himes, R. H., 6222
Hinkle, P. C., 7384, 7657, 7662, 8455
Hirata, F., 2774, 3548, 4637, 4643
Hirata, H., 2956, 3480, 6125
Hirose, S., 7733
Hirs, C. H. W., 8358
Hirschberg, C. B., 5815
Hixson, C. S., 32
Hizi, A., 2281, 2290, 6878, 8773
Ho, C., 4904
Ho, H. C., 43
Hoch, S. O., 1881
Hodges, C. T., 6038
Hoeldtke, R., 3160
Hoffman, B. M., 574, 3128, 6268
Hoffman, L. H., 3533
Hoffman, M., 8797
Hofmann, F., 1441, 7690
Hogenkamp, H. P. C., 963
Hogg, R. W., 5135
Hohberger, L. H., 8965
Holbrook, J. J., 433
Hollenbeck, R. A., 8365
Hollenberg, P. F., 6268
Hollocher, T. C., 212
Holloszy, J. O., 416
Holloway, P. W., 4842
Holmes, E. W., 7959
Holmgren, A., 4600
Holmsen, H., 1752
Holten, D., 7796
Holtzer, H., 8863
Holzer, H., 5316, 6399
Homcy, C. J., 8957
Hong, J.-S., 4056, 8582, 8773
Hong, S. L., 1408
Hoppel, C. L., 8731
Hopper, J. E., 9010
Hopwood, J. J., 4777
Horgen, P. A., 8812
Horn, M. J., 6356
Horowitz, J., 4418
Hosey, M. M., 102
Hosokawa, K., 4981
Hotta, K., 5437
Houser, R. M., 4017
Howton, M. M., 548, 4015
Hsia, J. C., 4043
Hsia, S. L., 3324
Hsu, F.-J., 2452
Hsu, S. L., 1250
Huang, C.-K., 5514
Huang, I.-Y., 8217
Huang, K.-P., 1231, 3240
Huang, R. C. C., 2592
Huang, R. H., 284
Hubbard, C. D., 1633
Hudson, B. G., 3995, 4002
Huennekens, F. M., 3760
Huestis, W. H., 6759, 6764
Huet, J., 8848
Huffman, P., 6349
Hugli, T. E., 1826
Huhn, R. D., 4773
Huisman, W. H., 3911
Hung, C.-H., 3995, 4002
Huo, A., 7214
Hurwitz, C., 652
Hurwitz, J., 483, 2524, 2534
Husson, M. A., 3414, 5924
Hutson, N. J., 7517
Hutson, S. M., 1303, 1309, 4539
Huu, M. C. N., 6666
Hwang, D. L., 1099
Hydrean, C., 6806
Hynes, N. E., 6666

I

Ibrahim, N. G., 5900
Iglehart, J. D., 7184
Iizuka, T., 4882
Ikeda, J.-E., 2534
Ikeda, S.-i., 8775
Ikeda-Saito, M., 620, 4882, 8639
Ikekawa, N., 1421
Ikemoto, N., 8446
Ikezawa, H., 1128, 6682
Imai, K., 620
Inagami, T., 2978, 7733
Inesi, G., 3044
Ingulli, J., 3745
Innerarity, T. L., 3980, 7279
Innis, M. A., 8469
Inoue, M., 7603, 7610
Inouye, M., 2324
Ip, S. H. C., 82
Ireland, C. B., 2262
Isaacson, J., 3446
Isakson, P. C., 1123
Ishimaru, A., 199, 6118
Ishino, K., 6245
Islam, M. A., 1523
Itada, N., 3881
Itarte, E., 1231
Ito, S., 2206, 6687
Itoh, R., 8965
Ivarie, R. D., 7834
Ives, D. H., 8235, 8240
Iwase, H., 5437
Iynedjian, P. B., 655, 8398

J

Jabusch, J. R., 555
Jackson, M. B., 4749
Jackson, R. L., 250, 8415
Jacobs, H. K., 8382
Jacobsson, B., 8833
Jacobus, W. E., 4232
Jaehning, J. A., 8753, 8762
Jakábová, M., 5602
Jakoi, L., 6856
Jakowlew, S. B., 6521
Jamieson, G. A., 2134
Jansen, P. L. M., 2710
Jaques, L. W., 4533
Jarett, L., 927
Jaskunas, S. R., 7323, 7337, 7344, 7355
Jayme, D. W., 7427
Jean, D. H., 2450
Jeanloz, R. W., 224, 2271
Jedlicki, E., 7711
Jeep, S., 6666
Jefcoate, C. R., 8788
Jefferson, L. S., 1476, 3611
Jeffery, W. R., 3525, 9081
Jeffs, P. W., 5729
Jencks, W. P., 1127
Jeng, I.-M., 20
Jensen, N. M., 157
Jensen, R. A., 5839
Jentoft, N. H., 3219
Jerina, D. M., 3715, 6328
Jernström, B., 6424
Jett, M., 2134
Jett, M. F., 7517
Ji, T. H., 1566, 8524
John, K. V., 6707, 8013
Johnson, E. F., 2839
Johnson, J. D., 8415
Johnson, J. H., 61
Johnson, J. L., 2017, 4988, 4994
Johnson, P., 983
Johnson, R. C., 878
Joklik, W. K., 2281, 2290, 6878, 6930, 6939, 8773
Jonas, A., 2194, 2200
Jones, E. E., 5928
Jones, H. P., 4988, 4994
Jones, J. P., 7738
Jones, L. R., 3315, 7905
Jones, M. E., 8374
Jones, N. C., 7398, 7405
Jones, W. M., 3170
Josephson, L., 7421
Joshi, V. C., 7015
Jung, C. Y., 5456
Jung, D. W., 7932
Jungmann, R. A., 6750
Jurkowitz, M., 7932

K

Kabat, D., 2684
Kabat, E. A., 6609
Kabbas, E. G., 6925
Kaduce, T. L., 6624
Kagamiyama, H., 2206
Kagawa, Y., 2956, 3480, 6125
Kaiser, E. T., 3007
Kaiser, I. I., 6310
Kaji, A., 8863
Kallai, O. B., 759, 776
Kallen, R. G., 5363
Kalra, V. K., 1084, 8229
Kamen, M. D., 7826
Kameyama, Y., 6682
Kamin, H., 896, 2908
Kanda, Y., 5100
Kandel, M., 5227
Kandel, S. I., 5227
Kandutsch, A. A., 409, 8975
Kang, C. H., 919
Kania, R. K., 4929
Kantrowitz, E. R., 2873
Kao, S.-h., 8245
Kao, W. W.-Y., 8391
Kaplan, A. P., 6097
Kappas, A., 2428, 5900, 6373
Karadsheh, N. S., 3515, 7418
Karlström, O., 6132
Karn, J., 7307
Karnovsky, M. L., 7035
Kartner, N., 5449
Kasahara, M., 7384
Kasai, T., 8945, 8950
Kasper, C. B., 1336
Kates, M., 68
Katoh, A., 3548
Katz, A. M., 1938, 1950, 4210
Katz, E. R., 694
Katz, J., 1831
Kaufman, J. F., 6201

Kaufman, R. A., 7437
Kaufman, S., 3160, 7711
Kawachi, T., 3277
Kawai, N., 4570
Kawai, Y., 6229, 6236
Kawasaki, T., 6536
Kayalar, C., 2478, 2486
Kaye, A. M., 1819
Kayne, F. G., 4882
Kayne, F. J., 620
Kazarinoff, M. N., 7598
Kazazian, H. H., Jr., 1758
Kean, E. L., 5619, 5622, 8773
Kearney, E. B., 1582, 6963
Keeley, S. L., 910, 3854
Kefalides, N. A., 8863
Keim, P. S., 4913
Keiser, H. R., 2069
Keller, K. H., 864, 5175
Kelley, W. N., 110
Kellogg, E. W., III, 6721
Kelly, P. T., 786
Kem, W. R., 3328
Kemp, B. E., 4888, 7109
Kench, J. E., 994
Kenkel, T., 3399
Kennedy, E. P., 4250, 6299
Kennedy, J., 3379
Kenney, F. T., 4958
Kenney, W. C., 4767
Kent, C., 7992
Kenyon, G. L., 1197, 1202
Kerbiriou, D., 2881
Kesner, L., 8537
Kester, W. R., 7704
Keutel, H. J., 8382
Keutmann, H. T., 5393
Khan, M. S., 1895
Khandelwal, R. L., 3408, 7413, 7488
Khatra, B. S., 7517
Khoo, J. C., 1484
Kiehm, D. J., 8524
Kim, J. J., 8292
Kim, J.-J. P., 2698
Kim, K.-H., 1748, 7812
Kim, Y. C., 1243
Kimura, H., 4384, 5820
Kimura, J. H., 6600
Kimura, N., 3829
Kimura, S., 1217, 8018
Kindya, R. J., 8537
King, T. P., 4326
Kinniburgh, A. J., 1156
Kirkwood, S., 1320
Kirschner, M. W., 1102
Kirtley, M. E., 6715
Kish, V. M., 2161
Kishimoto, A., 7449, 7603, 7610
Kishimoto, Y., 5206, 7068
Kisilevsky, R., 6217
Kitchens, R. L., 504
Klebanoff, S. J., 4803
Kleene, S. J., 3214
Kleid, D. G., 6251
Klein, W., 8692
Klett, R. P., 4811
Klotz, I. M., 8542
Kmiotek, E., 1250
Knapp, J. A., 437
Knight, B. L., 1064, 5356
Knight, D. M., 5928
Knobler, C. M., 1728
Knowles, F., 4102
Kobata, A., 5408, 6687
Kobayashi, R., 8285
Kobiler, D., 6026
Kochwa, S., 5529
Kodama, T., 8085
Kodowaki, H., 5287
Koenig, R. J., 2992
Koepsell, D., 1264
Kohler, L., 2834
Kohlhaw, G. B., 4085
Koh, Y., 8333
Kohn, L. D., 4049, 7967
Konecki, D. S., 4435, 4514
Kono, T., 2226
Korn, D., 4011, 6528, 7888
Korn, E. D., 399, 3374, 6501, 8300, 8329
Kornberg, A., 6478
Kornfeld, S., 1107, 2940, 4402, 9018
Koshland, D. E., Jr., 2793
Koszelak, S. N., 8728
Kowalski, D., 8652
Kowit, J. D., 8350
Kozak, M., 6895
Kozarich, J. W., 2934, 7525
Kozloff, L. M., 7715
Krag, S. S., 1780, 2621, 3561
Krajnovich, D. J., 2194, 2200
Krakow, J. S., 5724
Kramer, G., 2106
Kranias, E. G., 6750
Kraut, J., 8875
Kream, B. E., 4501
Krebs, E. G., 1441, 1712, 2691, 3408, 4888, 7413, 7488
Kress, Y., 6918
Krouwer, J. S., 5004
Krueger, B. K., 2764
Krueger, E. T., 4913
Kuby, S. A., 8382
Kuhlenschmidt, M. S., 563
Kuhlenschmidt, T., 1927
Kuhn, R. W., 299, 308
Kulczycki, A., Jr., 4402
Kumaki, K., 157
Kumar, S. A., 5724
Kumaran, K., 4379
Kung, C. K.-H., 5558
Kung, H.-F., 6889
Kung, V. T., 5398
Kuo, J. F., 4078, 4347
Kuo, J.-Y., 2390
Kupfer, D., 2797
Kurachi, K., 6276
Kurelec, B., 3836
Kuri-Harcuch, W., 2158
Kurisu, M., 3277
Kurosky, A., 7257
Kurtz, A., 2952
Kuźnicki, J., 7440
Kwong, L. K., 6310

L

Labaille, F., 5716
Lacombe, M.-L., 2039
Lad, P. M., 2790, 5180, 5942, 5947, 7964
Laemmli, U. K., 1102
Lagerkvist, U., 471, 1002, 5175
Lai, C.-Y., 7249
Lai, E., 3554
Lai, L. C., 3371
Lakshmanan, M. R., 4421, 4667, 6581
Lam, K.-W., 3371
Lamartiniere, C. A., 3234
Lambeth, J. D., 2908
Lamon, M., 7591
Lampen, J. O., 1745
Lancaster, J. R., Jr., 7657, 7662
Landau, B. R., 4379
Lane, M. D., 1414
Lang, D., 8269
Lang, D. R., 5936
Lappi, S., 7648
Lardy, H. A., 427, 1303, 1309, 1431
Largman, C., 61
Larimore, F., 3599
Larner, J., 444
Laskowski, M., Sr., 8652
Lau, Y. H., 5565
Lawrence, J. C., Jr., 444
Lazar, C., 3911
Lazarowitz, S. G., 7842
Lazarus, H., 7184
Lazarus, L. H., 7174, 7180
Lazdunski, M., 6112
Leach, B. S., 5239
Leavitt, R. D., 2961, 2967, 9018
Leboy, P. S., 4790
LeCam, A., 148
Lechene, C., 7421
Ledley, F. D., 4049
Lee, A., 3891
Lee, G., 4049, 7967
Lee, G. M., 2670
Lee, K.-H., 1748
Lee, K.-L., 4958
Lee, L.-S., 5686
Lee, M., 2675, 2680
Lee, S.-H., 1084, 8229
Lee, S. S. C., 2046, 2054
Lee, T. K., 8775
Lee, Y. C., 563, 2026
Lefkowitz, R. J., 799, 2787, 5295, 5472, 5478, 7207
Legerski, R. J., 8740
Lehky, P., 2834
Lehman, I. R., 499
Leid, R. W., Jr., 518
Leighton, T., 268
Leis, J. P., 2290, 6878, 8773
Leisinger, T., 3295
Leive, L., 2077, 3473
Le Moullec, J. M., 2611
Lenaerts, A. K., 7752
Lennarz, W. J., 1007, 3473, 7901
Lennon, M. B., 4125
Lenoir, M.-C., 6112
Lerner, B., 3170
Lerner, R. A., 6510
Lesch, M., 5010
Lester, R. L., 8684
Lestienne, P., 5931
Leung, K.-K., 2492
Lever, J. E., 1990, 8772
Levin, E., 4330
Levin, W., 3715, 6328
Levine, L., 1408, 6591
Levinson, B. B., 7834
Levinson, S. L., 3766
Levy, C. C., 7783
Levy, D., 181
Levy, G. N., 3460, 3466
Levy, H. R., 3745
Levy, J. S., 3599
Levy W., B., 8062
Lewis, A. S., 732
Lewis, J. A., 5547
Lewis, U. J., 3697
Li, E., 1107
Li, J. B., 1476
Li, S.-C., 5194
Li, Y.-T., 5194
Liang, S.-M., 8278
Liang, T., 3402, 5692
Liao, S., 5692
Liarakos, C. D., 4722
Lichtenwalner, D. M., 4134
Lieber, C. S., 7124
Lieberman, M. A., 4056, 8773
Liener, I. E., 1917
Lienhard, G. E., 3131
Lightfoot, H. N., 9071
Lim, P. H., 7673
Lim, S. T., 5708
Limbird, L. E., 799
Lin, A., 9071
Lin, H.-Y., 250
Lin, K.-T. D., 555
Lin, M. C., 2790, 5180
Lin, S., 5464
Lincoln, T. M., 3854, 4269
Lindahl, L., 7365
Lindahl, S., 8050
Lindahl, T., 3286
Lindberg, B. S., 1034
Lindblad, B., 5073
Lindell, T. J., 6660
Lindstedt, G., 5073
Lindstedt, S., 5073
Lingrel, J. B., 457, 1764
Linn, S., 1235, 1647, 2802
Linsley, W. S., 1235
Lippman, M. E., 2972
Lippoldt, R. E., 1129, 8713, 8719
Lipscomb, W. N., 2873
Lischwe, M. A., 4976, 4981
Liszewski, M. K., 3102
Litman, G. W., 8002
Littauer, U. Z., 1819, 6885
Little, J. W., 6251
Littman, D., 7625
Liu, A. Y.-C., 6494, 6588
Liu, K., 2846
Liu, T., 1780
Liu, T.-Y., 2178, 4773
Liu, W.-K., 522, 5274, 5280
Livingston, D. M., 7184
Livingston, J. N., 560
Ljungquist, S., 2808, 3286
Ljungström, O., 613, 5175, 6108
Lo, C.-S., 2458
Lo, H., 726
Lockau, W., 7894
Lockwood, D. H., 560
Lodish, H. F., 1181, 3952, 8804
Loeb, L. A., 3605
Loewengart, G., 5370
Loewus, M. W., 7221
Lomedico, P. T., 7971
Londos, C., 5180, 5951, 5957
Longacre, S. S., 273, 2742
Loomis, W. F., 820
Lopez-Romero, E., 3338
Lord, R. S., 8713
Lothrop, D. A., 2726
Lowden, J. A., 3105, 3112, 3117
Lowenstein, J. M., 5054
Lowery, C., 1375, 1381
Lu, A. Y. H., 3715, 6328
Lucas, J. J., 4330
Lucchini, C., 2519
Luck, D. J. L., 383
Ludueña, R. F., 7006
Luedi, M., 5798
Lui, A., 2187
Luisi, P. L., 2507
Lundblad, A., 1014, 1023, 1034
Lundblad, R. L., 7118
Lundblad, V. J., 794
Lunzer, M. A., 5483
Lusis, A. J., 4613
Lustig, F., 471, 5175
Lute, M., 7715
Lux, S. E., 2726
Luzzana, M., 2331
Luzzatto, L., 2796
Lynch, R. G., 4402
Lynn, W. S., 1172
Lyrene, S. A., 1523

M

Ma, S. K., 1728
Mabrey, S., 2929, 7042
MacDonald, R. J., 5522, 7391
MacDonnell, P. C., 5859
Mach, B., 2209
MacKenzie, R. E., 1117
MacKinlay, W., 9071
Maclachlan, G. A., 1402
MacNeal, R. K., 4440
Maelicke, A., 4811
Maggio, E. T., 1197, 1202
Maguire, M. E., 1293, 5761
Mahaffey, J. E., 5847
Mahler, I., 6294
Mahley, R. W., 3980, 7279, 7288
Maier, K. L., 671
Maimon, J., 5529
Maines, M. D., 219, 5900
Mains, R. E., 8821
Maitra, S. K., 2459
Maitra, U., 1739, 6485, 9081
Maizels, N., 3952
Majumder, H. K., 6485
Makemson, J. C., 803
Malbon, C. C., 1071, 1079, 7243
Maldonado, R., 4371
Maley, F., 4409
Malinzak, D. A., 5444
Maller, J. L., 1712, 3408, 7413
Mallia, A. K., 5100
Maloof, F., 1264
Man, N. K., 8040
Mandel, G., 759, 776, 4619
Mandel, N., 759, 776, 4619

Mandle, R., Jr., 6097
Manganiello, V. C., 1448, 5211
Mann, D. L., 4682, 6201
Mann, K. G., 840, 4942
Manning, J. A., 5483
Manning, J. M., 1571, 3170
Manoil, C., 2734
Marchesi, V. T., 508
Marchin, G. L., 6640, 6646
Marciani, D. J., 1425
Marcotte, P. A., 1571
Marcus, S. L., 11
Mårdh, S., 633, 8050
Mardiney, M. R., Jr., 7783
Margoliash, E., 574, 830, 919, 7743
Markel, D. E., 7257
Markham, G. D., 1197, 1202
Markovetz, A. J., 8561
Marks, P. A., 2182
Markus, H. B., 5363
Maroney, P. A., 4007
Marotta, C. A., 5019, 5032, 5040
Marsh, J. W., 7678
Marshall, M., 4276
Martenson, R. E., 1723
Martin, A. F., 3422, 3430
Martin, C. L., 7923
Martin, D. W., Jr., 4428
Martin, D. Z., 8269
Martin, G. R., 939
Martin, T. E., 1156
Martonosi, A., 318
Maruta, H., 399, 6501, 8329
Marvil, D. K., 3295
Masamune, Y., 8498
Masaracchia, R. A., 7109
Mascaro, L., 8113
Masiarz, F. R., 8126
Mason, M., 4591
Masoro, E. J., 5262
Massey, J. B., 8081
Massey, V., 5612, 6729
Masson, P. L., 7788
Masters, B. S. S., 4431
Masuda, H., 8567
Matern, H., 6399
Matheson, A. T., 4256
Matoba, T., 7733
Matschinsky, F. M., 8519
Matsui, S. M., 5186
Matsukawa, S., 6105
Matta, M. S., 8423
Mattheis, J. R., 4022, 8347
Matthew, J. B., 2234
Matthews, B. W., 5556, 7704
Matthews, D. A., 8875
Matthews, K. S., 3153, 3565, 3572
Matthews, R. G., 3199
Mattis, J. A., 6776
Mauck, L. A., 5672
May, S. W., 2390
Mazzara, G. P., 8245
McCarty, R. E., 8007
McClain, W. H., 8245, 8254
McCorkle, K., 1847, 7434
McCoy, J. R., 3582
McCray, J. A., 7475
McCurry, S. D., 8344
McCutchan, T., 2311
McDonagh, J., 6184
McDonagh, R. P., 6184
McDonald, J. M., 927
McFarland, J. T., 3493
McGoodwin, E. B., 939
McGuire, W. L., 3703
McHenry, C., 6478
McIntosh, D. B., 994
McIntyre, T. M., 4487
McKee, P. A., 5538
McKelvy, J. F., 5895
McKibbin, J. M., 5194
McKnight, S. L., 3099
McMillan, J., 2143
McPherson, A., 7031
McPhie, P., 4438
McReynolds, L. A., 1840
McVey, E., 1881
Means, A. R., 250, 2437, 5609, 6322, 8415
Meares, C. F., 8108
Meeks, J. C., 7894
Mehler, A. H., 2698
Mehlman, M. A., 4421
Meighen, E. A., 7495
Meisler, A. I., 7640
Meister, A., 2599, 2606, 3501, 3558, 6792
Mellgren, R. L., 6082
Mellman, W. J., 5363
Melnykovych, G., 3272
Meloche, H. P., 3486
Merkel, C. G., 1764
Metcalf, D., 1998
Metzger, H., 704
Meyer, E., 7424
Meyer, H., 1189
Meyer, L. J., 3911, 3919
Meyer, R. R., 4337
Meyer, T. E., 7826
Michael, L., 8476
Michaelsen, T. E., 883
Michaliszyn, G. A., 7495
Midelfort, C. F., 3486
Middaugh, C. R., 8002
Mildvan, A. S., 5967
Miles, E. W., 6594
Milgrom, E., 858, 5412
Miller, B. E., 3629
Miller, D. L., 8469
Miller, E. J., 639
Miller, E. M., Jr., 1523
Miller, J. D., 1576
Miller, L. L., 7511
Miller, S. L., 4025
Millero, F. J., 1127
Mills, S. E., 235
Milner, Y., 2940
Milstien, S., 7711
Mims, W. B., 5643
Mincey, T. C., 2405
Minkes, M. S., 1123
Misaki, A., 6995
Mishkin, S., 3626
Misra, H. P., 6421
Mitchell, H. L., 8105
Mitra, S., 5916
Mitra, S. K., 471, 5175
Mitschelen, J. J., 8924
Mittal, C. K., 3136, 4384
Miyake, T., 5558
Miyamoto, T., 890
Miziorko, H. M., 1414
Moczydlowski, E. G., 8908
Modak, M. J., 11
Modest, A. P., 7184
Modrich, P., 7265, 7273
Moffat, K., 4225
Moir, D., 4648, 4655, 8773
Moll, G. W., Jr., 3007
Monahan, J. E., 4125
Monahan, J. J., 1840, 4722, 5789
Moonsammy, G., 8572
Moore, I. B., 6544
Moore, L., 6304
Moore, P. A., 2675, 7427
Moore, S., 5904
Moore, V. G., 6310
Mora, J., 8724
Mora, W. K., 8899
Morales, T. I., 4855
Morell, P., 4025, 4850
Moriguchi, M., 6594
Morin, J. E., 7163
Morkin, E., 6925
Morris, H. P., 3626
Morrisett, J. D., 2113
Morrison, M., 6573, 7743
Morrow, J. S., 2234
Mortenson, L. E., 7081, 7089, 7093
Mortimore, G. E., 6948, 6955
Moses, R. E., 1840
Moss, J., 797, 2455, 5211
Mosteller, R. D., 4527
Mudd, J. M., 8423
Mudd, S. H., 3436
Mueller, O. T., 825
Mueller, T. J., 6573
Muesing, R. A., 6581
Mukherjee, C., 5295
Müller, I., 3836
Müller, R. E., 6823, 8206
Müller, U. R., 6640, 6646
Müller, W. E. G., 3836
Muller-Eberhard, U., 2839
Mulligan, J. H., 835
Mullikin, D., 5295
Mullinix, K. P., 8310
Mulvihill, E. R., 2060
Münch, J. D. B., 3821
Munns, T. W., 3102
Murad, F., 3136, 4384
Murad, S., 5206
Murakami, K., 2978, 7733
Murphy, L. A., 4739
Murthy, P. V. N., 3626
Musso, R. E., 3538

N

Nadler, H. L., 7923
Nagata, N., 3829
Nagy, A., 5227
Nagy, B., 4557
Nakagawa, H., 8229
Nakajima, H., 8217
Nakamura, T., 5267
Nakane, A., 5267
Nakaya, N., 5258, 7530
Nallin, M., 6806
Nandi, D. L., 2278
Nandi, P. K., 240
Napoli, J. L., 2580
Narasimhan, S., 3926
Narindrasorasak, S., 3121
Narumiya, S., 2648, 4413
Natale, P. J., 2304
Nath, K., 6562, 9082
Navab, M., 5100, 5107
Nazar, R. N., 4256
Neary, J. T., 1264
Nebert, D. W., 157, 4712, 8981
Needleman, P., 1123
Neely, A. N., 6948
Ne'eman, Z., 5150
Neet, K. E., 5345
Neifeld, J. P., 2972
Nelson, D. L., 3629
Nelson, N., 4564
Nemerson, Y., 8481
Nervi, A. M., 3934
Nes, I. F., 7300
Neuhaus, F. C., 2296
Neville, D. M., Jr., 1505, 1515
Nevins, J. R., 6930, 6939
Newby, A. C., 5947
Newman, D., 4298
Newman, M. J., 8890
Newman, S. A., 704
Nicosia, S., 2790, 5947
Nielsen, C. J., 7568, 7579
Nielsen, R. C., 4421
Nienhuis, A. W., 1908
Nishida, T., 1243
Nishimoto, K. R., 4527
Nishino, T., 2934, 7525
Nishizuka, Y., 7449, 7603, 7610
Nissley, S. P., 3898
Nobis, P., 4962
Noda, Y., 2648, 4413
Nola, E., 1358
Nolf, F. A., 7752
Nomura, K., 1723
Nomura, M., 7323, 7337, 7344, 7355, 7365
Nordeen, S. K., 5324
Nordin, J. H., 2584
Nordlie, R. C., 8404
Nordstrom, J. L., 8924
Norman, A. W., 8677
North, D. K., 8423
Norton, R. S., 1786, 1795
Notides, A. C., 8856
Noy, G. P., 3351
Nowak, T., 4758
Nowak, T. P., 6026
Nudel, U., 2182
Numanyu, N., 3277
Nunez, J., 3281
Nuss, D. L., 2815
Nyberg, B., 3286
Nyc, J. F., 8142, 8150, 8160, 8182

O

Oates, J. A., 7415
Obenrader, M. F., 2860, 2866
O'Brien, J. C., 2143
O'Brien, R. W., 1257
Ockner, R. K., 5483
O'Connell, E. L., 479
Oegema, T. R., Jr., 6470
Oei, J., 5661
Ofengand, J., 4418
Ogez, J. R., 6151
Ogino, N., 890
O'Gorman, R. B., 3565, 3572
Ohlendorf, D. H., 7992
Ohlsson, P.-I., 8222
Ohnishi, K., 7124
Ohnishi, T., 3548, 4637, 4643
Ohno, M., 3995
Ohtsuki, K., 483
Okabe, H., 7068
Okabe, K., 8382
Okamoto, H., 6125
Okayama, H., 7000
O'Keeffe, D. H., 4431
Okuma, M., 5871
Okuyama, H., 1128, 6682
O'Leary, M. H., 7168
Olivas, E., 4038
Oliver, R. M., 3515
Olson, J. S., 403
Olson, R. E., 4017, 6260, 7738
O'Malley, B. W., 299, 308, 1840, 2396, 4722, 5789
O'Neal, S. G., 4552
Opheim, D. J., 739, 3227
Oppenheimer, J. H., 6799
Oppenheimer, N., 8071
Ordman, A. B., 1320
Ores, C., 5529
Orii, Y., 1834
Orkin, S. H., 5606, 8774
Orme-Johnson, N. R., 5643
Orme-Johnson, W. H., 5643
Orr, H. T., 7555
Orrenius, S., 6424
Ortmann, R., 6018
Osborn, M. J., 4895, 4904, 7398, 7405
Osborne, J. C., Jr., 5756
Osheroff, N., 7743
Ostro, M. J., 5575
O'Toole, M. C., 5498, 8774
Owens, I. S., 2827
Oxender, D. L., 2675, 2680, 7427
Ozols, J., 5986, 8549

P

Pace, B., 1350
Pace, N. R., 1350
Packer, E. L., 2245
Paddock, G. V., 1840, 3446
Padmanabhan, R., 7947
Pagliara, A. S., 8519
Paigen, K., 4613
Palacios, R., 3028, 8724
Palatnik, C. M., 694
Palczuk, N. C., 3578, 3582
Pall, M. L., 7146
Palmer, F., 6190
Palmer, G., 403
Palmer, J. W., 8731
Palmiter, R. D., 2060, 6386, 8781
Palumbo, G., 3684
Pan, C.-J., 166
Pan, J., 368, 9032, 9043, 9047
Pang, D. C., 3262
Paoletti, E., 866, 872, 3092
Paoni, N. F., 7725
Papas, T. S., 1425
Parham, P., 7555
Parish, E. J., 8975
Parker, D. M., 433

Parker, D. S., 125, 6544
Parkison, C., 6335
Parr, J. S., 4337
Parrish, R. F., 1888
Pastan, I., 1639, 6304
Pasto, D. J., 4215
Patel, N., 5839
Paterson, B. M., 8320
Patrick, J., 2143, 8629
Patrick, J. G., 4347
Patsch, J. R., 2113, 7530
Patterson, B. W., 2200
Pattishall, K. H., 2319
Pattus, F., 4313
Paul, K.-G., 8222
Paulson, J. C., 2356, 2363, 8615, 8624
Paulus, H., 4648, 4655, 8773
Payne, N. A., 7415
Peach, M. J., 4674
Pearlstone, J. R., 971, 978, 983
Pecker, F., 2784
Peczon, B. D., 4002
Pederson, T., 2161
Peet, M., 4796
Pei, P. N., 8269
Peisach, J., 574, 3637, 5643
Pelka, H., 814, 3941
Penefsky, H. S., 2891
Penhoet, E. E., 1235
Perkins, J. P., 6018
Perrin, M. H., 7174, 7180
Pessin, J. E., 6190
Pestka, S., 4474
Peters, B. A., 5345
Peters, S. P., 563
Peters, T. Jr., 8464
Petersen, G. B., 2218
Peterson, D. O., 5735, 5740, 5745
Peterson, G. S., 8261
Peterson, J. A., 4431
Peterson, J. W., 7257
Peterson, M. B., 5010
Peterson, R. G., 2072
Peterson, S. M., 3697
Petit, L., 5716
Pettigrew, D. W., 4546
Pfeffer, S. R., 5403
Pfeiffer, S. E., 2777
Pfeuffer, T., 7224
Phillips, A. T., 5701
Phillips, D. R., 2121, 5602
Phillips, G. N., Jr., 5142
Philosoph, S., 8747
Pichard, A.-L., 4872
Pickett, R. A., II, 6510
Pictet, R. L., 7391
Pieringer, R. A., 4391, 4395, 5864
Pierson, D. L., 5839, 6464
Pigiet, V. P., 6367
Pinphanichakarn, P., 2106
Piperno, G., 383
Pitas, R. E., 7279
Pizer, L. I., 1527, 1539
Pizzo, S. V., 5538
Plagemann, P. G. W., 2010, 4185, 4191
Plapp, B. V., 1464
Plaut, G. W. E., 2702
Pleau, J.-M., 8040, 8045
Plese, P. C., 6139
Pletcher, C., 3219
Plow, E. F., 8917
Podevin, R. A., 6675
Podolsky, D. K., 1807
Podskalny, J. M., 3898
Poe, M., 3724
Pointer, R. H., 2226
Poirier, P. G., 4108
Polacco, M. L., 5488
Polakoski, K. L., 1888
Pollet, R. J., 5828
Polokoff, M. A., 1167
Pong, S.-S., 1408
Pont, A., 5847
Poon, R., 3446
Popják, G., 644, 1057
Porper, R., 6342, 9081
Porter, D. J. T., 4361, 4464
Porter, J. W., 1523
Post, L., 7365
Post, R. L., 633
Postma, P. W., 7862
Poto, E. M., 1490
Potter, J. D., 2437, 2452, 5609, 6356, 8415
Potts, J. T., Jr., 5847
Pouysségur, J., 1639
Powell, G. L., 806
Powers, S. G., 3558
Powis, G., 2929
Pownall, H. J., 2452
Prakash, V., 240
Pratt, W. B., 7568, 7579
Prendergast, F. G., 840
Prensky, W., 5032
Preston, M. S., 5951, 5957
Price, R. G., 8597
Price, S. S., 6208
Printz, J. M., 1654
Printz, M. P., 1654
Prior, G., 3422, 3430
Pritchard, A. E., 8652
Prockop, D. J., 8391
Prouty, W. F., 2860, 2866
Pry, T. W., 1425
Przybyla, A. E., 5522, 7391
Puca, G. A., 1358
Pugh, E. L., 68
Purich, D. L., 4440, 6046
Puszkin, E. G., 4371, 5529
Puszkin, S., 5529

Q

Quarfordt, S. H., 6856
Quick, D. P., 5977, 5981
Quinlan, T. J., 1156
Quinto, C., 3028, 8724
Quiocho, F. A., 5142

R

Rabinowitz, J. C., 2245
Rabinowitz, M., 3422, 3430
Racker, E., 1814, 3208, 6700, 6981
Radhakrishnamurthy, B., 4831
Raetz, C. R. H., 5911
Ragavan, V. V., 5010
Raizada, M. K., 7235
Rajagopalan, K. V., 2017, 4988, 4994
Ramierz, F., 2182
Ramjoué, H.-P. R., 9065
Rampal, A. L., 5456
Rangel-Aldao, R., 7140
Rannels, S. R., 1476
Rao, B. D. N., 3344, 6245
Rao, G. R. K., 5115, 5124
Rao, S. N., 8728
Rasmussen, H., 1217
Ratner, S., 5287
Rauch, B., 7850
Raugi, G., 3402
Rawles, J. W., Jr., 4762
Raz, A., 1123
Rearick, J. I., 2363
Rebeiz, C. A., 4022, 8347
Rechler, M. M., 3898
Redd, W. L., 6145
Reddy, V. V. R., 2797
Redfield, B., 6889
Reeck, G. R., 8105
Reed, G. H., 1197, 1202
Reed, R. G., 7483, 8464
Reeder, R. H., 3099
Reeve, L. E., 2580
Reeves, J. P., 4876
Reeves, R. E., 726
Regen, D. M., 3533
Reich, E., 4811
Reichard, P., 536
Reichert, L. E., Jr., 4166
Reimann, E. M., 2384
Reiness, C. G., 8589
Reinhart, G. D., 427
Reiser, J., 451, 990
Rendell, M. S., 7909
Rephaeli, A. W., 8890
Repke, D. I., 1938, 1950, 4210
Resheed, A., 5672
Reuveny, Z., 1858
Reyes, E., 318
Reynolds, F. H., 7818
Reynolds, J. A., 3791
Reynolds, R. K., 7818
Reznik, R. B., 8240
Rhoads, D. B., 1394
Riazuddin, S., 6280, 6287, 6294
Richards, F. F., 2072
Richards, F. M., 5514
Richards, J. C., 4981
Richards, R. L., 797
Richardson, C. C., 8498
Richardson, J. P., 1375, 1381
Richter, C., 5061
Richter, G. W., 2046, 2054
Richter, W. E., Jr., 5750
Rick, P. D., 3219, 4895, 4904
Rietsch, J., 4313, 4319
Rietschel-Berst, M., 3219
Riggs, A. D., 5509
Rintoul, D. A., 7916
Riordan, J. R., 5449
Ritter, M. C., 1208
Ritz, C. J., 1084
Rivier, J. E., 7180
Rizzo, W. B., 7062
Robb, R. J., 4694
Robberson, D. L., 8740
Robbins, J., 4458, 6076, 8713, 8719
Robbins, K. C., 1141, 3945
Robbins, P. W., 1780, 2621, 3561
Robert-Ems, J., 5509
Roberts, J., 2640, 6970
Roberts, J. H., 4134
Roberts, L. J., II, 7415
Roberts, M. F., 2405, 6011
Robertson, H. D., 7842
Robinson, B. H., 5661
Robinson, F. W., 2226
Robinson, G. W., 3679
Robinson, J. B., Jr., 6061
Robinson, J. C., 1231, 3240
Robkin, L., 1752
Roblin, R. O., 6256
Ro-Choi, T. S., 3814
Rochovansky, O., 5287
Rock, C. O., 6363
Rodbell, M., 2790, 5180, 5942, 5947, 7909, 7964
Rodkey, J. A., 6846
Rodwell, V. W., 8924
Roeder, R. G., 8753, 8762
Roel, L. E., 6026
Rogers, G. N., 1719
Rogers, T. B., 8108
Rognstad, R., 1831, 8519
Rohr, T. E., 3460, 3466
Roller, P. R., 2575
Roon, R. J., 3599
Roosdorp, N., 3876
Roper, M., 6169, 9081
Roper, M. D., 4354
Rosano, C. L., 652
Rose, I. A., 479, 4262, 6769
Rose, J. K., 1181
Roseman, M. A., 4842
Roseman, S., 7850, 7862
Rosen, H., 4803
Rosen, O. M., 92, 2780, 2855, 3554, 7140
Rosenberg, A., 825, 2412
Rosenberg, J., 4619
Rosenberry, T. L., 7200
Rosenblatt, M., 5847
Rosenbloom, J., 2447, 8023
Rosenbusch, J. P., 8136
Rosenfeld, H. J., 2640, 6970
Rosenfeld, L., 563
Rosenfeld, M. G., 392, 3843
Rosenfield, R., 5529
Rosenthal, G. A., 3679
Rosenthal, I., 3548
Rosenthal, O., 4755
Rosing, J., 2478, 2486
Rosner, W., 1895
Ross, E. M., 5761, 6966
Ross, M. E., 6042
Ross, P. S., 1448
Rossi-Bernardi, L., 2331
Rossi, G., 704
Roth, H. E., 721
Roth, S., 2163
Rottem, S., 2077
Rouault, C., 5529
Roufa, D., 318
Rougeon, F., 2209
Rowe, D. W., 939
Rowe, L. B., 9010
Roy, R. G., 6651, 6655
Roychoudhury, R., 4786
Royer, G. P., 8775
Rozengurt, E., 4584
Rozhin, J., 7214
Rubin, C. S., 3554
Rubin, R. A., 7265, 7273
Rudkin, B. B., 3194
Rudnick, G., 2170
Rudolph, F. B., 1844
Rudolph, S. A., 7132
Rüegg, U. T., 6585
Ruettinger, T., 8603
Ruiz, H. A., Jr., 4831
Ruiz-Herrera, J., 3338
Rundgren, M., 5073, 5085, 5094
Rushizky, G. W., 3003
Russell, P., 7877, 7883
Rutishauser, U., 6835, 6841
Rutter, W. J., 273, 2742, 3082, 5522, 7391, 8118, 8126, 8772
Ryan, J., 1719
Ruzicka, F. J., 8440

S

Saari, J. C., 3267
Saba, T. M., 7156
Sabaitis, J. E., Jr., 806
Sabatini, D. D., 5547
Sachs, G., 8572
Sacktor, B., 583, 591
Sadler, W. C., 8504
Saeki, Y., 2206
Saffran, W. A., 7955
Saier, M. H., Jr., 4416, 8890, 8899, 8908
Salhany, J. M., 1226
Sallas, N., 858
Salser, W., 1840, 3446
Salvatore, G., 3281
Salvo, R. A., 6485
Samaja, M., 2331
Sams, C. F., 3153
Samuels, H. H., 6052
Samuelsson, B., 9082
Sando, J. J., 7568, 7579
Santala, R., 7625
Santiago, N. A., 4922, 4929
Sarau, H. M., 8572
Sarkar, P., 1739, 9081
Sarver, J. A., 2226
Sassa, S., 2428
Sauer, F. D., 2657
Saunders, G. F., 7971
Sawicki, C. A., 5783, 7538
Saz, H. J., 4215
Scallen, T. J., 1561, 6145
Scanu, A. M., 1208, 4202, 6745, 8634 9082
Schachter, H., 3926
Schafer, D. E., 7132
Schatz, G., 8333
Schell, M. A., 1162
Schellenberg, G. D., 9055
Schenkman, J. B., 2929
Schimke, R. T., 406, 5615
Schlegel, H., 5835
Schlender, K. K., 2384
Schlesinger, D. H., 1689
Schlesinger, S., 9018
Schlessinger, D., 8945, 8950
Schleyer, H., 4755

Schmer, G., 6276
Schmidt, J., 3493
Schmidt, P. G., 2262
Schnoes, H. K., 2580, 4501
Schofield, P., 5584, 5589
Schonfeld, G., 6651, 6655
Schook, W., 5529
Schrader, W. P., 6409
Schrader, W. T., 299, 308
Schrock, H. L., 5990, 7883
Schroepfer, G. J., Jr., 8975
Schubart, U. K., 92
Schulman, H., 4250, 6299
Schulman, L. H., 814, 3941, 6403
Schultz, R. M., 3775, 3784
Schulz, H., 542
Schulz, R. A., 755
Schumaker, V. N., 1728
Schuster, S. M., 427
Schütz, G., 6666
Schutzbach, J. S., 7235, 8013
Schwalb, M. N., 8435
Schwartz, A., 8476
Schwartz, H. L., 6799
Schwartz, N. B., 6316, 6707
Schwechheimer, K., 7690
Schweingruber, M. E., 6577
Schweppe, J. S., 6750
Schworer, C. M., 6948
Schwyzer, M., 2338, 2346, 3799
Scudder, M. L., 8840
Seager, J., 644
Searcey, M. T., 6260
Sears, D. A., 712
Seavey, B. K., 3697
Seed, T. M., 2134
Seegmiller, J. E., 6002
Seelig, G. F., 3671
Segal, H. L., 7151
Seid, R. C., Jr., 4773
Seidman, J. G., 8245
Seidman, M. M., 2630
Sekizawa, J., 2324
Sekura, R., 2599, 2606
Sellers, L., 8113
Sentenac, A., 8848, 8935
Severson, D. L., 1484
Sewell, E. T., 8126
Seybert, D. W., 4225
Shaffer, P. W., 7894
Shanahan, M. F., 6554, 8341
Shanks, K. E., 6163
Shapira, E., 7923
Shapiro, B. M., 1286
Shapiro, D. J., 5244, 8428
Shapiro, D. L., 508
Shapiro, L., 4157
Shapiro, L. E., 6052
Shapiro, S., 92
Sharma, V. K., 7444
Sharp, S. B., 3738
Shatkin, A. J., 6895
Shattil, S. J., 3310
Shaw, E. N., 2245
Shaw, J., 5304
Shaw, J. M., 4391, 4395
Shemin, D., 2278, 8965
Shen, L. L., 6184
Shepherd, R. E., 7243, 8066
Sherblom, A. P., 420
Sherman, F., 6577
Sherman, W. R., 5672
Sherwin, A. L., 3105, 3112, 3117
Sheu, K.-F. R., 4445
Shibata, K., 7468
Shigekawa, M., 4210
Shine, J., 3987
Shiota, T., 5750
Shipley, G. G., 744, 4449, 4701
Shire, J. G. M., 157
Shizuta, Y., 2206, 3408, 7413
Shoji, M., 4347
Shooter, E. M., 7006, 8532
Shore, J. D., 433
Shoupe, T. S., 1633
Shrager, R. I., 2331
Shrago, E., 6711, 7548
Shulman, R. W., 1344
Sica, V., 1358
Siddiqui, M. A. Q., 6521
Siddoway, L. A., 6201
Sidikaro, J., 1092
Siegel, G. J., 5201
Siegel, R. C., 254
Siegert, W., 3286
Sigg, R. H., 2507
Silbert, D. F., 8797
Silbert, J. E., 518
Silva, E. S., 6799
Silverberg, S. A., 8481
Silverman, D. N., 3332
Silverman-Jones, C. S., 2575
Simon, M., 4056, 8773
Simoni, R. D., 7916
Simpson, M. V., 2984
Simpson, R. T., 3003, 6516
Sims, H. F., 3102
Sinclair, P., 219
Singer, J., 5509
Singer, M. F., 5115, 5124
Singer, S. C., 7959
Singer, T. P., 1582, 4767, 8035
Singh, M., 6061, 7583
Singh, T. J., 625
Sinha, A. K., 3310
Sinha, N., 2734
Siperstein, M. D., 548, 4015
Sippel, A. E., 6666
Sirica, A. E., 5895
Sirover, M. A., 3605
Sjöberg, B.-M., 536, 6132
Sjödin, T., 5067
Sjöholm, I., 3876, 5067, 8222
Sjöström, L., 8833
Skala, J. P., 1064, 5356
Sklar, J., 3538
Skogerson, L., 1471
Sköld, O., 7620
Skuster, J. R., 5666
Slaughter, G. R., 6082
Slayman, C. W., 3357
Slavik, M., 5449
Slotboom, A. J., 2948
Small, D. M., 744, 4701, 7288
Smigel, M., 3689
Smile, D. H., 3399
Smillie, L. B., 971, 978, 983
Smith, C. A., 7294
Smith, C. J., 7243
Smith, E. L., 8142, 8150, 8160, 8174, 8182, 8196
Smith, E. R., 3709
Smith, J. E., 5107
Smith, U., 8833
Smith, W. G., 5304
Smulson, M., 4134
Snell, E. E., 835, 1852, 7598
Snipes, C. E., 8113
Snopek, T. J., 1732
Snyder, C. E., 5916
Snyder, C. E., Jr., 5464
Snyder, F., 6363
Snyder, S. H., 6450
Soderling, T. R., 7517
Sodetz, J. M., 5538
Soffer, R. L., 1316
Sogin, M. L., 1350
Solano, C., 1606
Söll, D., 2311
Soltys, B. J., 4043
Sonderegger, P., 609
Sone, N., 2956, 3480, 6125
Sono, M., 7475
Soodak, M., 1264
Soper, T. S., 1571, 3170
Soreq, H., 6885
Sorimachi, K., 4458
Spaet, T. H., 4371
Spears, C., 6889
Spector, A. A., 6624
Spector, R., 3364
Spence, J. T., 5852
Sperens, B., 3286
Sperry, P. J., 6443
Spiro, M. J., 5424
Spiro, R. G., 6229, 6236, 8597
Sprecher, H., 6736
Springer, T. A., 4682, 4694, 6201
Sprinson, D. B., 2846
Srere, P. A., 6061, 7583
Srikant, C. B., 1847, 7434
Srikantaiah, M. V., 1561, 6145
Sripati, C. E., 1344
Sriram, G., 5350
Stackrow, A. B., 3587
Stacy, A. R., 6409
Stadtman, T. C., 5337
Stahl, S. J., 5403
Stallcup, B., 8629
Stancel, G. M., 1092
Standaert, M. L., 5828
Stankiewicz, P., 7031
Stanley, E. R., 4305
Stanley, F., 6052
Stanley, P., 3926
Stark, G. R., 6379
Stark, N. J., 3460, 3466
Steggles, A. W., 1908
Stein, E. A., 2834
Stein, R. B., 1589
Steinberg, D., 1484
Steiner, D. F., 7971
Steinman, H. M., 3799
Steitz, J. A., 5177
Steitz, T. A., 4494
Stellwagen, R. H., 5509
Stengel, D., 2039
Stephens, R. E., 166, 173
Stephenson, J. R., 7818
Stern, L., 6403
Sternlicht, H., 2245
Stevens, F. C., 43, 7440
Stevens, J. B., 3509
Stevens, V. J., 2998
Stewart, J. W., 6577
Stewart, T. S., 2311
St. John, R. T., 212
Stock, J. B., 7850
Stock, T., 6169, 9081
Stolc, V., 1901
Stoll, E., 990
Storm, D. R., 1719
Strauss, A. W., 6846
Strid, L., 471, 5175
Stringer, E. A., 1739, 9081
Strittmatter, P., 5656
Strittmatter, W. J., 5472, 5478
Strobel, H. W., 437
Strominger, J. L., 2934 7525, 7555
Strominger, J. L., 4682, 4694, 6201, 7525, 7555
Strott, C. A., 464
Strout, H. V., 1264
Struck, D. K., 1007
Strycharz, W. A., 7365
Stubbe, J., 8338
Stull, J. T., 851
Sturgill, T. W., 5761
Sturtevant, J. M., 4749
Subramanian, K. N., 333, 340, 355, 368
Sudhaker, S., 4134
Suelter, C. H., 1852
Sugden, P. H., 3854
Sugimura, T., 3277
Sugino, A., 1732, 3987
Sugiura, K., 4570
Suhadolnik, R. J., 4125, 4134
Sullivan, A. C., 7583
Sullivan, B., 406
Summaria, L., 1141, 3945
Sundari, R. M., 3941
Sundarraj, N., 2777
Sung, M. T., 4976, 4981
Susskind, B., 726
Suter, P., 8136
Sutherland, R. B., 8812
Suttle, D. P., 6379
Sutton, M. R., 3934
Suzuki, K., 3805
Suzuki, S., 3074, 4570
Swanson, R., 759, 776
Swartz, M. J., 8105
Sweeney, W. V., 2245
Sweet, R. M., 8258
Sweetman, B. J., 7415
Swenberg, M.-L., 2331
Switzer, R. L., 7424, 8504
Szmigielski, A., 3848
Szymanski, E. S., 205

T

Tabatabai, L. B., 5666
Tabita, F. R., 943
Tabor, C. W., 8212
Tabor, H., 8212
Tachibana, Y., 5408
Taegtmeyer, H., 5010
Tai, J. Y., 2178, 4773
Tai, T., 6687
Takai, K., 2648, 4413
Takai, Y., 7449, 7603, 7610
Takano, T., 776
Takeda, Y., 6177
Takenawa, T., 5419
Takeshita, M., 6105
Talalay, P., 6438
Tall, A. R., 4701, 7288
Tan, L. U. L., 1117
Tanabe, T., 8624
Tanaka, M., 7081, 7089, 7093
Tanaka, Y., 1421
Tandler, B., 8731
Tanford, C., 3551
Taniguchi, T., 2774
Taniuchi, H., 125, 1367, 6544
Tanzer, M. L., 8018
Tao, M., 102
Tate, S. S., 6042
Tate, W., 4514
Taunton, O. D., 5258, 7530
Taylor, B. L., 1257
Taylor, H. C., 5599, 6991
Taylor, J. M., 1272, 3611
Taylor, M. W., 5350
Taylor, P., 7648
Taylor, S. S., 1799
Teale, J. M., 4521
Tedesco, T. A., 5363
Tedro, S. M., 7826
Teng, T.-l., 6745, 8634, 9082
Terasaki, W. L., 1041
Terhorst, C., 4694
Tessmer, G. W., 5666
Thakare, U., 6799
Thakker, D. R., 6328
Thayer, W. S., 8455, 8459
Thibodeau, L., 3304
Thiery, J.-P., 6835, 6841
Thomas, D., 2611
Thomas, J., 7894
Thomas, J. A., 6082
Thompson, E. B., 2717, 3891
Thompson, G. A., 6792
Thompson, T. E., 4842
Thorgeirsson, S. S., 4712
Thornburg, W., 6660
Thorpe, C., 3199
Thrash, C. R., 5615
Tillack, T. W., 318
Tipper, D. J., 9010
Tivol, W. F., 6151
Tobes, M. C., 4591
Todd, R. D., 4729, 8269
Todhunter, J. A., 6046
Todokoro, K., 3961
Toews, M. L., 3214
Tokuyama, T., 2648, 4413
Tolbert, N. E., 8344
Tolson, N., 5859
Tomoda, A., 6105
Toraya, T., 963
Torchia, D. A., 3617
Tormanen, C. D., 1561, 6145
Tormey, D. C., 2972
Tortora, P., 2519
Toscano, D. G., 1719
Toulmé, J.-J., 244
Touster, O., 739, 2545, 3227
Towle, H. C., 2396
Tracy, J. W., 4085
Traish, A. M., 6823, 8206

Traugh, J. A., 3738
Traut, T. W., 8374
Traylor, T. G., 7447
Treadwell, B. V., 6889
Trela, J. M., 3399
Treloar, M. A., 6217
Treloar, M. E., 6217
Trimble, R. B., 4409
Tritton, T. R., 2929
Trop, M., 3170
Trosper, T., 181
Trout, A., 7992
Truding, R., 4850
Truffa-Bachi, P., 5332
Truitt, C. D., 5431
Trus, B. L., 759, 776, 4619
Tsai, B.-S., 4674
Tsai, M.-J., 2396
Tsai, S. Y., 2396
Tse, J., 4347
Tse, T. P. H., 1272
Tsong, T. Y., 8778
Tsunoo, H., 8217
Tsurugi, K., 3961, 9071
Tsuruhara, T., 9002
Tsuruo, T., 7947
Tu, C., 3332
Tu, S.-C., 803
Tu, Y.-s. L., 8455
Tucker, P., 4474
Tulsiani, D. R. P., 2545, 3227
Turco, S. J., 2918
Tushinski, R. J., 3870
Tutas, D. J., 3092
Tuttle, R. C., 4416
Twumasi, D. Y., 1917
Tyler, F. H., 8382

U

Uda, Y., 5194
Udell, D. S., 7913
Ueda, K., 7000
Ueda, T., 5155, 5164
Ueland, P. M., 677
Uematsu, T., 4125, 4134
Ulbrich, N., 9071
Ulitzur, S., 5150
Umemoto, J., 8609
Unger, R. H., 1847, 7434
Uno, I., 5164, 6494, 6588
Untracht, S. H., 4449
Uozumi, T., 6245
U'Prichard, D. C., 6450
Ushio, K., 963
Ushiro, H., 2648, 4413
Utter, M. F., 51, 1257, 2458
Uyeda, K., 3515, 7418

V

Vadi, H., 6424
Vagelos, P. R., 3934, 4242
Valdes, R., Jr., 74, 88
Valenzuela, P., 3082, 8118, 8126,-8772
Vallee, R. B., 377
Vanatta, P. R., 878
Van Baelen, H., 2515
van Dam-Mieras, M. C. E., 2948
Vance, D. E., 7673
Vandekerckhove, J. S., 7752, 7761, 7773
Vandenheede, J. R., 3408, 7413, 7488
VanderLaan, W. P., 3697
Van Der Werf, P., 2793
Van Dop, C., 1303, 1309
Van Durren, B. L., 5370
van Es, T., 3578, 3582
Van Montagu, M. C., 7752, 7761, 7773
Van Tuyle, G. C., 2984
Vardanis, A., 807
Vaughan, M., 1448, 2455, 5211
Veech, R. L., 4421, 4667, 6581
Vega, F. V., 2226
Vega, J. M., 896
Venegas, A., 8126
Verger, R., 4313, 4319
Verheij, H. M., 1189
Verly, W. G., 3304
Verma, A. K., 7235
Veron, M., 1286
Vessey, D. A., 7534
Vicuna, R., 2524, 2534
Vidali, G., 7307
Vilček, J., 4425
Violand, B. N., 2175, 7725
Visser, D. W., 2492
Vissering, F. F., 2984
Vlassara, H., 2998
Voet, J. G., 4464
Vogel, W. M., 7568
Vögeli, G., 2311
Voigt, W., 3324
von Meyenburg, K., 4151
von Wartburg, J.-P., 1464, 3821

W

Wada, H., 2206
Wagner, C., 933
Waheed, A., 1628
Wakil, S. J., 1128, 7015
Walasek, O. F., 830
Walder, J. A., 8542
Waldron, P. E., 3194
Walker, M. D., 1819
Wallace, S., 2524
Wallick, E. T., 8476
Wallwork, J. C., 5977, 5981
Walsh, C. T., 1571
Walsh, D. A., 4287, 7109
Walsh, K. A., 6386
Walsh, M., 7440
Walter, U., 6494, 6588
Walton, G. M., 6443
Wang, A.-C., 7192
Wang, E.-C., 116
Wang, F.-F. C., 8358
Wang, I. Y., 7192
Wang, J. C., 5398
Wang, J. H., 43, 625, 4175
Wang, M.-Y. R., 6268
Wang, T. S.-F., 7888
Wänn, B., 3876
Ward, D. N., 522, 5274, 5280
Ward, G. K., 1127
Ward, K. B., 3012
Ward, W. F., 6955
Warms, J. V. B., 4262
Warner, J. R., 1344
Warner, R., 7421
Warren, C. D., 224
Warren, J. R., 6831
Warren, L. G., 726
Warrington, R. C., 5251
Wasserman, S. I., 7074
Watanabe, A. M., 2787, 3315, 7905
Watanabe, K., 6970
Waterman, M. R., 7468
Watson, I. D., 8085
Watson, J. A., 950
Watson, N., 3064
Webber, R. J., 5222
Weber, L. A., 4007
Weber, M. J., 6190
Weber, P., 7156
Webster, D. A., 1834
Webster, R. E., 4487
Wedding, R. T., 3459
Wegener, L. J., 4002
Wei, C. H., 1099
Weichman, B. M., 8856
Weickmann, J. L., 2615
Weidig, C. F., 433
Weigel, P. H., 1148
Weil, P. A., 1092
Weiland, G., 7648
Weinberg, F., 8126
Weiser, M. M., 1807
Weisgraber, K. H., 7279
Weiss, M. A., 8007
Weiss, R. L., 6974
Weiss, S. B., 4935
Weissbach, A., 3351
Weissbach, H., 721, 6889
Weissman, S. M., 333, 340, 355, 368, 3538, 5019, 5032, 5040, 9032, 9043, 9047
Weissmann, C., 990
Wells, J. W., 5227
Wells, R. D., 7300
Weltner, W., Jr., 4533
Welton, A. F., 5180, 5942, 5947
Wendel, A., 5061
Weppner, W. A., 2296
Wermuth, B., 3821
Weser, U., 5061
West, K., 8489
West, T. D., 4287
Westwood, J. C., 1807
Wharton, D., 5262
Whetzel, N. K., 3752
White, G. C., II, 7118
White, H., 1127
White, R. E., 4431
Whitesell, R. R., 3533
Whitlock, J. P., Jr., 3003, 6516, 7635
Wiche, G., 794
Widnell, C. C., 3074
Wiecko, J., 5672
Wiegand, R., 1965, 4015
Wiegandt, H., 194
Wiggins, J. C., 6038
Wilbraham, A. C., 8423
Wilbur, D. J., 4968
Wilchek, M., 6076
Wiley, M. H., 548, 4015
Wilkins, R. G., 4038, 6069
Wilkinson, D. S., 1051
Williams, B. G., 7344, 7355
Williams, C. H., Jr., 3199
Williams, K. R., 5584, 5589
Williams, L. T., 2787, 7207
Williams, M. N., 6871
Williams, R. M., 5393
Williams, R. W., 6253
Willoughby, E., 7525
Wilson, D. B., 1162
Wilson, G., 5904
Wilson, G. E., Jr., 2004
Wilson, J. T., 5019, 5040
Wilson, K. J., 990
Wilson, L., 7006
Wimmer, M. J., 6769
Winberry, L., 7796
Wing, S. S., 7495
Winget, G. D., 1814
Winkelhake, J. L., 1865
Winslow, R. M., 2331
Winter, C. G., 8278
Wirch, E., 43
Wititsuwannakul, D., 7812
Wittebort, R. J., 2234
Woessner, J. F., Jr., 4855
Wohl, R. C., 1141
Wohlhueter, R. M., 4185, 4191
Woledge, R. C., 8085
Wolfe, J. K., 433
Wolff, D. J., 4108, 5677
Wolff, J., 687, 1134
Wolfson, H., 2143
Wolk, C. P., 7894
Wolosin, J. M., 2419
Wong, J. Y., 7424
Wong, L.-J., 4262
Wong, Y.-S., 1402
Woo, S. L. C., 1840, 4722, 5789
Wood, C. L., 5295
Wood, H. G., 1490, 1500
Wood, R., 1965, 4015
Wood, T. G., 457, 1764
Wood, W. I., 5745
Woods, P. S., 8762
Wool, I. G., 3961, 9071
Workman, E. F., Jr., 7118
Wotiz, H. H., 6823, 8206
Wratten, N., 5251
Wrenn, S. M., 8957
Wrigley, N. G., 1500
Wriston, J. C., Jr., 7678
Wu, C. W., 4157
Wu, J. W., 5363
Wu, R., 4786
Wu, T. T., 6609
Wyers, F., 8935

Y

Yagi, H., 6328
Yam, L. T., 3371
Yamada, K., 1128, 6682
Yamada, S., 4501
Yamaguchi, S., 3805
Yamamoto, H., 620, 4882, 8639
Yamamoto, S., 890, 5871
Yamamura, H., 5947, 7964
Yamashita, K., 5408, 6687
Yamashita, T., 7940, 7947
Yamazaki, I., 199, 6118
Yamazaki, S., 4425
Yanagisawa, M., 7421
Yang, C. S., 293
Yang, D. S., 3153
Yang, Y.-Z., 3374
Yasukochi, Y., 4431
Yasunobu, K. T., 7081, 7089, 7093
Yavin, E., 260
Yeh, M.-F., 3399
Yesian, H., 8245
Yi, P. N., 6335
Yip, B. P., 1844
Yoakum, G. H., 7023
Yoch, D. C., 7453, 7461
Yohe, H. C., 2412
Yonetani, T., 620, 4882, 8639
Yoneyama, Y., 6105
Yorifuji, T., 20
York, R. M., 7184
Yoshida, A., 8217
Yoshida, M., 2956, 3480, 6125
Yoshikawa, S., 5498, 8774
Yoshimoto, T., 5871
Yoshimura, M., 8863
Young, A. M., 3587
Young, D. A., 5324
Young, F. E., 4118
Younis, H. M., 1814
Yount, R. G., 1673, 1681
Yu, B. P., 5262
Yu, F.-L., 3245
Yu, L.-Y., 3870
Yu, R. K., 6247
Yuan, R., 451
Yurt, R. W., 518

Z

Zablocki, W., 8784
Zahn, R. K., 3836
Zak, R., 3422, 3430
Zakim, D., 7534
Zalkin, H., 5431
Zamierowski, M. M., 933
Zaoralek, P. E., 5835
Zaugg, R. H., 8542
Zava, D. T., 3703
Zawalich, W. S., 8519
Zeeberg, B., 2101
Zehner, Z. E., 7015
Zehring, W. A., 4337
Zeigler, B. P., 260
Zemlička, J., 7214
Zengel, J., 7365
Zevely, E. M., 3760
Zilversmit, D. B., 1613
Ziter, F., 8382
Zoccoli, M. A., 3131
Zoon, K. C., 6585
Zucker, M. B., 4371
Zull, J. E., 1071, 1079
Zur, M., 8481
Zusman, R. M., 2069
Zweidler, A., 173
Zweier, J. L., 6090
Zwisler, O., 187, 194

Vol. 252, No. 24, Issue of December 25, pp. 9093–9118, 1977

KEYWORD INDEX

The Keyword Index for this volume has been compiled and photocomposed by the Chemical Abstracts Service Division of the American Chemical Society

A protein phage MS2 sequence 7752 7761 7773
Acanthamoeba actin 8300
Acanthamoeba actin interaction muscle tropomyosin 3374
Acanthamoeba myosin heavy chain kinase 8329
Acanthamoeba myosin II 6501
Acanthamoeba protein actin gelation 399
Acetate Entamoeba pyruvate metab 726
Acetate phenyl chymotrypsin acylation 1633
Acetoacetate respiration lipid formation development 5222
Acetobacter ketoglutarate dehydrogenase regulation 2940
Acetoxyacetylaminofluorene nuclease Pseudomonas 8740
Acetyl CoA carboxylase inhibition liver 5483
Acetyl CoA carboxylase regulation 1748
Acetyl CoA liver pyruvate carboxylase correction of page 51 2458
Acetyl CoA pyruvate carboxylase 51
Acetyl CoA synthetase Entamoeba 726
Acetyl CoA synthetase yeast 504
Acetyl group fatty acid omega oxidn 4379
Acetylated methylmannose polysaccharide Streptomyces 2470
Acetylation chromatin nucleosome histone 5962
Acetylation protein prevention 8781
Acetylcholine calcium transport parotid 3629
Acetylcholine receptor heart embryo 8692
Acetylcholine receptor muscle 2143
Acetylcholine receptor parasympatholytic 4811
Acetylcholine receptor structure muscle 8589
Acetylcholinesterase activation methylacridinium methylpyridinium 7200
Acetylgalactosaminidase limpet 5194
Acetylgalactosaminyltransferase blood group A 2346
Acetylgalactosaminyltransferase fucosylgalactose salivary 2338
Acetylgalactosaminyltransferase protein substrate 3799
Acetylglucosamine binding glycoprotein liver 6536
Acetylglucosamine lipid metab 3473
Acetylglucosamine undecaprenyl Bacillus 4118
Acetylglucosaminidase Diplococcus 8615
Acetylglucosaminidase specificity Clostridium Streptomyces 6687
Acetylglucosaminyltransferase CHO cell 3926
Acetylglucosaminyltransferase polyprenol pyrophosphate 3057
Acetylglutamate synthetase Escherichia 3295
Acetylneuraminate calcium binding 4533
Acetylserine sulfhydrylase kinetics mechanism 3459
Acetyltransferase choline kinetics mechanism 4796
Acetyltransferase protein modification 3738
Acetyltryptophanamide peptide oxidn enzyme 4413
Achlya RNA formation antheridiol 8812
Acid dissocn folate deriv 3724
Acid phosphatase spleen leukemia 3371
Acid secretion stomach mucosa metab 8572
Aconitase methylisocitrate 2702
Acrosin proacrosin activation 1888
ACTH adenyl cyclase adipocyte 3554
ACTH corticosteroidogenesis lipoprotein receptor 4861
ACTH structure mouse 8821
Actin Acanthamoeba interaction muscle tropomyosin 3374
Actin brain platelet liver Acanthamoeba 8300
Actin formation brain development 1819
Actin gelation Acanthamoeba protein 399
Actin myosin thyroid 8285
Actinin muscle property 5529
Activator protein guanylate synthase 4384
Activator protein squalene epoxidase 5381
Active site alk phosphatase 7053
Active site amine oxidase kynuramine 8081
Active site asparaginase peptide 2072
Active site aspartate aminotransferase heart 5835
Active site carboxypeptidase A thermolysin 7704
Active site creatine kinase 1197
Active site glutamyl transpeptidase 6792
Active site hexokinase 4494
Active site porphobilinogen synthase mercapto 8964
Active site pyruvate kinase 5183
Active site RNase S histidine 6991
Active site thymidylate synthetase sulfhydryl 6139
Active site UDP glucose dehydrogenase 1320
Actomyosin actinin interaction 5529
Acyl carrier protein metabolism correction of page 4706 806
Acyl CoA inhibition carboxylase 5483
Acyl selectivities acyltransferases Escherichia coli correction of page 2487 1128
Acylation chymotrypsin phenyl ester 1633
Acylcarnitine animal tissue 7930
Acyltransferase alkylglycerophosphate brain microsome 1663
Acyltransferase carnitine animal tissue 7930
Acyltransferase dihydroxyacetone phosphate harderian gland 6363
Acyltransferase glycerophosphate fibroblast adipose 2158
Adenine nucleotide immobilization sol copolymer 6631
Adenine nucleotide transport mitochondria inhibition 6711
Adenine ribose NAD analog 4125
Adenine transfer RNA methyltransferase liver 4790
Adeno virus DNA replication 7940
Adenosine binding protein liver 677
Adenosine deaminase erythrocyte 110
Adenosine deaminase erythrocyte kidney 6409
Adenosine diphosphate
See ADP
Adenosine inhibition adenylate cyclase 5951
Adenosine liver glycogenolysis hormone 8066
Adenosine monophosphate
See AMP
Adenosine phosphoroglycerol formation cell membrane 1719
Adenosine phosphorothioate adenylate kinase 4445
Adenosine polyphosphate carbamyl phosphate synthetase 3558
Adenosine steroidogenesis adenyl cyclase 687
Adenosine thymocyte energy metab 5324
Adenosine triphosphatase sidedness vesicles correction of page 3035 , 8772
Adenosine triphosphate
See ATP
Adenosylmethionine decarboxylase Saccharomyces pyruvoyl residue 8212
Adenosylmethionine synthetase yeast 4506
Adenovirus protein formation 4981
Adenovirus RNA polymerase III 8762
Adenovirus RNA promoter sequence 9047
Adenovirus RNA terminal sequence 9032 9043
Adenovirus transcription RNA polymerase 8753
Adenyl cyclase adenosine steroidogenesis 687
Adenyl cyclase adipocyte differentiation 3554
Adenyl cyclase erythrocyte prostaglandin 5295
Adenyl cyclase glucagon guanine nucleotide 3829
Adenyl cyclase liver glucagon 2790
Adenylate charge platelet ATP 1752
Adenylate cyclase activation cation 5957
Adenylate cyclase activation guanine nucleotide 5180
Adenylate cyclase activation guanyl nucleotide 7909
Adenylate cyclase adrenergic receptor 799
Adenylate cyclase adrenergic receptor lymphoma 5761 5776
Adenylate cyclase brain fluoride calcium 5677
Adenylate cyclase cholera toxin 3766
Adenylate cyclase component 6966
Adenylate cyclase glucagon receptor liver 5947
Adenylate cyclase glucagon receptor regulation 5942
Adenylate cyclase heart unmasking 7905
Adenylate cyclase hydrophobicity 8957
Adenylate cyclase leukocyte 1901
Adenylate cyclase nucleotide protein complex 2784
Adenylate cyclase protease Clostridium 2039
Adenylate cyclase regulation erythrocyte 7224
Adenylate cyclase regulation GTP adipocyte 7964
Adenylate cyclase regulation liver 5951
Adenylate cyclase regulator cation binding 4108
Adenylate deaminase potassium ATP 1606
Adenylate energy charge sperm motility 8088
Adenylate kinase adenosine phosphorothioate 4445
Adenylyl imidodiphosphate ATPase 1673
Adipocyte adenylate cyclase regulation GTP 7964
Adipocyte calcium endoplasmic reticulum binding 927
Adipocyte differentiation hormone sensitivity 3554
Adipocyte glucose transport 181
Adipocyte glycogen synthase insulin 444
Adipocyte insulin hagfish 602
Adipocyte insulin respiration phosphorylation 2226
Adipocyte polyamine hydrogen peroxide 560
Adipose cell membrane 6229
Adipose fibroblast lipid enzyme 2158
Adipose glucose transport system 6554
Adipose glycoprotein cell membrane 6236
Adipose lipolysis noradrenaline kinetics 8833
Adipose membrane glucose transport 8341
Adipose microsome cholinephosphotransferase ethanolaminephosphotransferase 3050
Adipose protein kinase development 1064
Adipose tissue lipase phosphoprotein phosphatase 1484
Adipose tissue protein kinase development 5356
ADP binding arginine kinase 3344
ADP immobilization water sol copolymer 6631
ADP myosin binding 8085
ADP pyruvate kinase magnesium complex 5967
ADP ribosyltransferase arginine choleragen mechanism 2455
Adrenal cholesterol ester metab lipoprotein 1771
Adrenal cytochrome P 450 8788
Adrenal estrone sulfotransferase inhibition 7214
Adrenal medulla nucleus protein phosphorylation 8365
Adrenal pregnenolone binding protein 464
Adrenal steroid cholesterol lipoprotein receptor 4861
Adrenal stroidogenesis adenosine 687

Adrenal tyrosine hydroxylase 3160
Adrenergic beta receptor binding nucleotide 7207
Adrenergic calcium transport parotid 3629
Adrenergic liver phosphorylase calcium 2662
Adrenergic prostaglandin receptor gene expression 1293
Adrenergic receptor adenylate cyclase 799
Adrenergic receptor adenylate cyclase lym= phoma 5761 5776
Adrenergic receptor heart thyroxine 2787
Adrenergic receptor parotid 5472
Adrenergic receptor parotid potassium 5478
Adrenodoxin reductase ferricyanide cyto= chrome 2908
Adriamycin DNA polymerase bacteriophage 2670
Affinity chromatog globin messenger RNA 457
Affinity chromatog isocitrate dehydrogenase 3671
Affinity chromatog lectin 57
Affinity chromatog thioredoxin 6367
Affinity chromatog zinc chelate 5934
Affinity chromatog. sialyltransferase 2356
Aflatoxin B1 liver RNA formation 3245
Agarose concanavalin peroxidase thyroid 1264
Agglutinin galactose sialo group liver 8624
Agglutinin resistance glycoprotein cell 1107
Aggregation factor sialyltransferase sponge 3836
Aggregation Hb S pH oxygenation 7468
Alamethicin ATPase adenylate cyclase 7905
Alaninato copper glycyl mol structure 8840
Alanine aminotransferase glutamate dehyd= rogenase 1250
Alanine aminotransferase metab pyridoxine 4958
Alanine carboxypeptidase kinetic mechanism 2934
Alanine carboxypeptidase penicillin hydroxy= lamine 7525
Alanine formation Escherichia 3392
Alanine formation heart anoxia 5010
Alanine transfer RNA reaction bisulfite 2551
Alanine transport kidney 583
Albumin antigen determinant 8464
Albumin binding conformation fatty acid 4043
Albumin drug bilirubin binding 3876
Albumin formation cellfree 1272
Albumin formation liver pituitary 3611
Albumin ligand binding 5067
Albumin octanoate binding structure 4326
Albumin precursor peptide sequence 6846
Albumin reaction bilirubin palmitate 7483
Albumin serum folding 4521
Albumin serum immunol polyethylene glycol 3578
Alc dehydrogenase coenzyme kinetics 3493
Alc dehydrogenase conformation pH 433
Alc dehydrogenase interaction NAD analog 8990
Alc dehydrogenase kinetics human liver 1464
Alc oxidn cytochrome P450 7124
Alcohol dehydrogenase
See also Dehydrogenase
Aldehyde dehydrogenase induction liver 6169
Aldehyde reductase liver 2545
Aldehyde reductase liver NADP 3821
Aldolase ketodeoxygluconate phosphate substrate 3486
Aldolase nitroazidophenylcystamine dioxide 5514
Aldolase specificity 479
Alk phosphatase Bacillus 6813
Alk phosphatase Bacillus carbohydrate 6806
Alk phosphatase conformation thermodn 7042
Alk phosphatase phosphodiesterase Thermus 3399
Alk phosphatase phosphoprotein dephospho= rylation 6082
Alk phosphatase zinc phosphate interaction 7053
Alkaloid tubulin dimer structure 7006
Alkylation antibody circulation clearance 1865
Alkylglycerophosphate acyltransferase brain microsome 1663
Alloantigen bone marrow cell structure 6201
Allosteric property phosphofructokinase eythrocyte membrane 7418
Alpha fucosidase liver lysosome 739
Alveolar proteinosis glycoprotein lung 1172
Amidation antibody circulation clearance 1865
Amidolyase urea Candida 1628
Amidophosphoribosyltransferase form inter= conversion hysteresis 7959
Amidotransferase glutamine phosphoribosyl= pyrophosphate Bacillus 7424
Amidotransferase glutamine phosphoribosyl= pyrophosphate hysteresis 7959
Amination ketoglutarate glutamate synthase 3501
Amine binding transglutaminase mechanism 3752
Amine oxidase active site kynuramine 8081
Amino acid distribution complementarity Ig 6609
Amino acid formation Escherichia 3392
Amino acid lactate dehydrogenase 1799
Amino acid liver lysosome perfusion 6948
Amino acid liver lysosome protein 6955
Amino acid methylamine ammonia transport Saccharomyces 3599
Amino acid muscle insulin 1476
Amino acid oxidase conformation 8035
Amino acid oxidase kinetics 4464
Amino acid plasma vesicles fibroblasts cor= rection of page 1990, 8772
Amino acid sequence complement C3a C5a 1826
Amino acid sequence IgG3 hinge 883
Amino acid terminus HLA antigen 4682
Amino acid transaminase inhibition chloroa= lanine 3170
Amino acid transaminase vinylglycine 1571
Amino acid transport animal cell 2675
Amino acid transport cell growth 2680
Amino acid transport derepression hepatoma 2900
Amino acid transport energy coupling 8582
Amino acid transport energy Escherichia 4056
Amino acid transport fibroblast 1990
Amino acid transport liver 148
Amino acid transport lymphocyte 7101
Amino acid turnover basement membrane 8597
Aminoacyl transfer RNA synthetase mechan= ism 2698
Aminoacyl tRNA synthetase biol transport 7427
Aminoacyl tRNA synthetase mechanism 1002
Aminoacyl tRNA synthetase yeast 878
Aminoacylation formylmethionine transfer RNA 814
Aminoacylation transfer RNA anticodon 6403
Aminoadipate aminotransferase kynurenine 4591
Aminoisobutyrate transport fatty acid mem= brane 6624
Aminoisobutyrate transport liver 148
Aminolevulinate synthase liver hormone 2428
Aminolevulinate synthase Rhodopseudomo= nas structure 2278
Aminolevulinate synthetase liver cobalt 219
Aminooxochloropentanoate glutamylcysteine synthetase 2606
Aminopeptidase intestine brush border 4922
Aminopeptidase intestine specificity 4929
Aminophospholipid localization sarcoplasmic reticulum 8446
Aminotransferase aminoadipate kynurenine 4591
Aminotransferase asparagine substrate spe= cificity 2032
Aminotransferase aspartate active site heart 5835
Aminotransferase aspartate isoenzyme 609
Aminotransferase aspartate kinetics 7919
Aminotransferase glutamate dehydrogenase aspartate 1250
Aminotransferase hepatoma cyclic AMP dexamethasone 3891
Aminotransferase metab liver pyridoxine 4958
Aminotransferase ornithine Neurospora arginine 6974
Aminotransferase tyrosine degrdn nucleus 7834
Aminotransferase tyrosine induction hor= mone 6783
Aminovalerate transaminase induction Pseu= domonas 7987
Ammonia formation muscle exercise 5054
Ammonia methylamine transport amino acid Saccharomyces 3599
Ammonialyase ethanolamine mechanism 5004
Ammonium assimilation Anabaena 7894
AMP cyclic binding protein 6494
AMP cyclic binding protein liver 677
AMP cyclic binding protein neoplasm 6342
AMP cyclic blood platelet cholesterol 3310
AMP cyclic brain protein phosphokinase 5155
AMP cyclic cell membrane potential *Neuros= pora* 7146
AMP cyclic detn heart 1041
AMP cyclic dibutyryl metabolite liver 4287
AMP cyclic formation guanylate cyclase 3136
AMP cyclic glucagon yolk sac 7151
AMP cyclic glycogen synthase kinase 2384
AMP cyclic histidase liver 3234
AMP cyclic insulin pancreas neoplasm 92
AMP cyclic LH receptor testis 9002
AMP cyclic liver catecholamine calcium 8645
AMP cyclic messenger RNA 655
AMP cyclic neuroblastoma protein 4850
AMP cyclic nucleotide phosphodiesterase hepatoma dexamethasone 1448
AMP cyclic obesity hyperglycemia lipase 7243
AMP cyclic ovary gonadotropin 8869
AMP cyclic phosphodiesterase egg 4662
AMP cyclic phosphorylase activation 7488
AMP cyclic protein kinase 910 3854 7140 7690
AMP cyclic protein kinase carcinoma 6335
AMP cyclic protein kinase egg 1712
AMP cyclic pseudoplasmodia slime mold 4073
AMP cyclic soly diffusion 864
AMP cyclic thymocyte adenosine 5324
AMP cyclic troponin phosphorylation kinase 851
AMP cyclic tyrosine aminotransferase dex= amethasone 6783
AMP deaminase myosin meromyosin 1869
AMP immobilization water sol copolymer 6631
Amylase messenger RNA pancreas 5522
Anabaena ammonium assimilation 7894
Anaphylaxis substance arylsulfatase 7074
Androgen transfer RNA prostate 5692
Anesthetic cholinergic receptor agonist inter= action 7648
Aneurysm skin lysyl oxidase 939
Angiotensin converting enzyme inhibition 4674
Angiotensin converting enzyme serum 1316
Angiotensin PGE1 biosynthesis kidney 2069
Angiotensinogen property 1654
Anhydrase carbonic bromoacetazolamide 5227
Anhydrase carbonic erythrocyte bicarbonate 3881
Anhydrase carbonic isoenzyme erythrocyte 555
Anhydrase carbonic mechanism oxygen exchange 3332
Anhydrochymotrypsin residual esterase activity 8423
Animal cell amino acid transport 2675
Animal cell mannosyl oligosaccharide lipid 3561
Animal cell purine ribosomal RNA 5350
Animal cyclic nucleotide cell transport 2010
Animal tissue acylcarnitine 7930
Animal tissue protein kinase subunit 1441
Anion iron transferrin chelate 8108
Anion oxyhemerythrin reaction kinetics 6069
Anion transferrin vanadyl binding 5996
Anion transport erythrocyte reconstitution 2419
Anoxia heart alanine formation 5010
Antheridiol RNA formation Achlya 8812
Antibiotic Escherichia phosphatidylserine synthetase 5911
Antibody ATPase modification 8476
Antibody clearance chem modification 1865
Antibody creatine kinase 3105
Antibody histone calf Drosophila 3099
Antibody lysozyme combining site peptide 8784
Antibody nucleotide determinant 3102
Antibody ornithine decarboxylase 2866
Antibody specificity apolipoprotein 6655
Anticodon codon recognition valine 471
Anticodon transfer RNA aminoacylation 6403
Antigen albumin determinant 8464
Antigen cell adhesion embryo 6835
Antigen fibrinogen conformation chain 8917
Antigen HLA carbohydrate peptide 7555
Antigen HLA detergent purifn property 4682

Antigen HLA subunit disulfide structure 4694
Antigen lymphocyte subunit assocn 6201
Aorta mannosyltransferase oligosaccharide formation 2498
Aorta proteoglycan 4831
Apolipoprotein AI lipoprotein structure 1208
Apolipoprotein AI self assocn 8634
Apolipoprotein AII assocn rhesus 6745
Apolipoprotein antibody specificity 6655
Apolipoprotein dimyristoyllecithin complex 2200
Apolipoprotein interaction lecithin lysolecithin 2194
Apolipoprotein interaction lysolecithin 3684
Apolipoprotein sequence chicken 250
Apoprotein antigenicity high density lipoprotein 6651
Arabinose binding protein conformation 5142
Arabinose binding protein peptide sequence 5135
Arachidonate GMP cyclase platelet 1279
Arachidonate kidney cell benzopyrene 6591
Arachidonate metab coronary artery 1123
Arachidonic rabbit polymorphonuclear leukocytes correction of page 7816, 9082
Arachidonoyl lecithin formation microsome 68
Arene oxide hydration stereospecificity 6328
Arginine ADP ribosyltransferase choleragen mechanism 2455
Arginine albumin drug bilirubin binding 3876
Arginine aspartate transcarbamylase mechanism 2873
Arginine ATPase ATP phosphate exchange 3147
Arginine deiminase Mycoplasma 2615
Arginine glucose phosphate dehydrogenase 3745
Arginine kinase substrate binding 3344
Arginine kinase tobacco hornworm 3679
Arginine lipoprotein fibroblast receptor 7279
Arginine metab Streptomyces azomycin 5267
Arginine ornithine aminotransferase Neurospora 6974
Arginine transfer RNA bacteriophage T4 8254
Arginine transfer RNA nucleotide sequence 8245
Arginine tryptophanase Escherichia 7598
Argininosuccinate synthetase kinetics 5287
Artery coronary arachidonate metab 1123
Artery proteoglycan 4831
Aryl hydrocarbon hydroxylase receptor 8981
Arylazidoalanine NAD enzyme photoaffinity label 8990
Arylsulfatase basophil neoplasm 7074
Ascaris basement membrane intestine carbohydrate 4002
Ascaris branched fatty acid metab 4215
Ascaris protein basement membrane intestine 3995
Asparaginase active site peptide 2072
Asparaginase glycosylation 7678
Asparagine transaminase substrate specificity 2032
Asparaginyl tRNA synthetase transport 7427
Asparate kinase mechanism sequence 5304
Aspartate aminotransferase active site heart 5835
Aspartate aminotransferase isoenzyme 609
Aspartate aminotransferase kinetics 7919
Aspartate formation Escherichia 3392
Aspartate glutamate dehydrogenase aminotransferase 1250
Aspartate glutamate transport Escherichia 9055
Aspartate ketosteroid isomerase 6151
Aspartate kinase homoserine dehydrogenase 5332
Aspartate kinase subunit Bacillus 4648 4655
Aspartate transcarbamoylase effector binding site 8136
Aspartate transcarbamylase complex 6379
Aspartate transcarbamylase conformation subunit 2881
Aspartate transcarbamylase mechanism arginine 2873
Aspartate transcarbamylase succinate binding 2262
Aspartokinase Bacillus subtilis correction of page 4648, 8773
Aspartokinase homoserine dehydrogenase active fragment 7685
Aspergillus beta mannosidase 2026
Aspergillus oryzae cryst nuclease kinetics correction of page 6245 6245
Aspergillus wall galactomannan structure 2584
Assocn dissocn globulin electrolyte 240
Assocn Hb subunit calorimetry 88
Assocn Hb subunit thermodn 74 82
Astrocytoma cyclic AMP prostaglandin 6018
Atherosclerosis lipoprotein cholesterol ester 7288
ATP adenylate deaminase potassium 1606
ATP analog myosin ATPase 1673
ATP analog myosin ATPase heart 1681
ATP ATPase conformation sarcoplasmic reticulum 3044
ATP ATPase phosphorylation mechanism 633
ATP binding arginine kinase 3344
ATP binding aspartate transcarbamoylase 8136
ATP binding phosphorylation mitochondria 2486
ATP biosynthesis ATPase mechanism 427
ATP carbamyl phosphate synthetase 3558
ATP chromium hexokinase inhibition 1844
ATP citrate lyase hydroxycitrate isomer 7583
ATP DNase Escherichia mechanism 499
ATP Escherichia DNA crosslink 7023
ATP glucose transport thymocyte 4876
ATP immobilization water sol copolymer 6631
ATP methylene sarcoplasmic reticulum 3262
ATP mitochondria calcium glucocorticoid 1217
ATP muscle vanadate contamination 7421
ATP phosphate exchange mitochondria ATPase 3147
ATP phosphorylation exchange reaction 2478
ATP platelet adenylate charge 1752
ATP protein kinase 7140
ATP pyruvate kinase magnesium complex 5967
ATP sperm motility 8088
ATP sulfurylase tobacco nitrogen 1858
ATP transformed fibroblast permeability 4584
ATP transport calcium mitochondria 5372
ATPase activation lectin 5449
ATPase avian myeloblastosis virus 6700
ATPase calcium muscle potassium 1620
ATPase calcium transport heart 3315
ATPase cell membrane 2450
ATPase cell membrane potassium 3035
ATPase conformation digitonin 8278
ATPase delipidated reactivation detergent 3551
ATPase F1 aurovertin binding 8333
ATPase heart mitochondria phosphate binding 2891
ATPase heart unmasking 7905
ATPase inactivation ozone erythrocyte membrane 8537
ATPase inhibition vanadate 7421
ATPase inhibitor Saccharomyces mitochondria 671
ATPase kinetics mechanism 8058
ATPase lead 5201
ATPase mechanism ATP biosynthesis 427
ATPase mercapto sarcoplasmic reticulum 5262
ATPase mitochondria ATP phosphate exchange 3147
ATPase mitochondria subunit structure 4743
ATPase modification antibody 8476
ATPase Mycobacterium trypsin 8229
ATPase myosin ATP analog 1673
ATPase myosin heart ATP analog 1681
ATPase myosin heart thyrotoxicosis 6925
ATPase myosin thyroid 8285
ATPase Neurospora plasma membrane 3357
ATPase nucleotide binding site 1084
ATPase phosphorylation ATP mechanism 633
ATPase phosphorylation hydrogen transport 2956
ATPase proton transport liposome 6125
ATPase reconstitution 3480
ATPase RNA formation termination 1375 1381
ATPase sarcoplasmic reticulum 3044
ATPase sarcoplasmic reticulum development 318
ATPase sarcoplasmic reticulum temp 8567
ATPase sodium potassium transport liposome 5630
ATPase subunit Rhodospirillum chromatophore 8747
ATPase Tetrahymena cytosol 7548
Atractylate CoA adenine nucleotide transport 6711
Aurovertin ATPase F1 binding 8333
Automatic sequencing insol peptide determent 2218
Autophosphorylation protein kinase isoenzyme 6588
Avian myeloblastosis virus nucleoside triphosphatase 6700
Azide guanylate synthase activation 4384
Azidobenzoimidate receptor label 1566
Azidomethemoglobin EPR carp 1327
Azomycin Streptomyces arginine metab 5267

Bacillus alanine carboxypeptidase 2934
Bacillus alk phosphatase 6813
Bacillus alk phosphatase carbohydrate 6806
Bacillus aspartate kinase subunit 4648 4655
Bacillus desaturase temp 3660
Bacillus glutamine phosphoribosylpyrophosphate amidotransferase 7424
Bacillus nuclease ribosomal RNA 1350
Bacillus oxidative phosphorylation uncoupler 5936
Bacillus penicillinase releasing protease 1745
Bacillus RNA polymerase rifampicin resistance 9024
Bacillus sporulation RNA polymerase mutation 268
Bacillus undecaprenyl polyacetylglucosaminyl pyrophosphate 4118
Bacteria lactate vitamin B6 835
Bacteria phosphoenolpyruvate sugar phosphotransferase 8899
Bacteriophage DNA deoxyribonucleotide formation 6031
Bacteriophage DNA polymerase adriamycin 2670
Bacteriophage Escherichia DNA protein sepn 2734
Bacteriophage lambda Cro protein 6177
Bacteriophage M13 DNA structure 5916
Bacteriophage protein automatic sequencing 2218
Bacteriophage Qbeta RNA S1 site 5177
Bacteriophage T even zinc baseplate 7715
Bacteriophage transfer RNA sequence 8245
Bacteriophage T4 arginine transfer RNA 8254
Bacteriophage T4 RNA ligase 1732
Bacteriophage valyl tRNA synthetase modification 6646
Baker yeast DNA polymerase 1873
Bandeiraea lectin 4739
Barnase peptide RNase complementation 3252
Basement membrane Ascaris intestine carbohydrate 4002
Basement membrane metab kidney 8597
Basement membrane protein intestine Ascaris 3995
Basophil arylsulfatase neoplasm 7074
Bean embryo endodeoxyribonuclease 3304
Bean lima lectin glycopeptide 6995
Bean phytohemagglutinin biochem biol 2961
Beneckea flavin reductase 7495
Beneckea luciferase subunit biosynthesis 803
Beneckea membrane protein bioluminescence 5150
Benzoate phenyl chymotrypsin acylation 1633
Benzodiazepine binding albumin 5067
Benzopyrene hydroxylase induction liver genetics 157
Benzopyrene induction prostaglandin endoperoxide synthetase 6591
Benzopyrene metab liver DNA 6424
Beta adrenergic receptor binding nucleotide 7207
Beta galactosidase heterogeneity 4613
Beta mannosidase Aspergillus 2026
Bicarbonate erythrocyte carbonic anhydrase 3881
Bicarbonate regulation citrate transport mitochondria 5661
Biliary disease plasma lipoprotein 2113
Bilirubin binding albumin 3876 5067
Bilirubin glucuronidation liver 2710
Bilirubin reaction albumin palmitate 7483
Binding
See also Aggregation and Association
Biol transport aminoacyl tRNA synthetase 7427
Bioluminescence membrane protein Beneckea 5150

Biotin carboxyl carrier protein Escherichia 3934
Biotin carboxylation mechanism 8338
Biphenyl polychlorinated liver hemeprotein induction 6373
Bisulfite reaction alanine transfer RNA 2551
Bisulfite reaction transfer RNA 2566
Bisulfite transfer RNA aminoacylation 814
Blastokinin messenger RNA uterus 5412
Blood circulating thymic factor 8040
Blood coagulation factor VIII sialate 5538
Blood coagulation factor XI activation 6432
Blood coagulation factor XIIIa 3752
Blood factor X activation VII 8481
Blood group A acetylgalactosaminyltransferase 2338 2346
Blood group sucrase intestine 3277
Blood hydroxycholecalciferol binding protein cytoplasm 2515
Blood oxygen equil Adair equation 2331
Blood platelet ATP adenylate charge 1752
Blood platelet cyclic AMP cholesterol 3310
Blood platelet factor peptide sequence 6276
Blood platelet function myosin 4371
Blood platelet glycoprotein disulfide 2121
Blood platelet hydroxytryptamine transport membrane 2170
Blood platelet proteinase calcium 5602
Blood platelet thrombin interaction structure 7118
Blood platelet thromboxane synthetase 5871
Blood polyethylene glycol catalase 3582
Blood serum opsin glycoprotein 7156
Bohr effect Hb cobalt hybrid 8639
Bohr effect Hb ferriheme 3128
Bond peptide specificity protease 1745
Bone collagen tunicamycin 955
Bone marrow cell alloantigen structure 6201
Bongkrekate adenine nucleotide transport 6711
Bovine serum albumin antigen determinant 8464
Bradykinin PGE1 biosynthesis kidney 2069
Brain actin 8300
Brain adenylate cyclase fluoride calcium 5677
Brain catecholamine binding 6450
Brain ceramide metab 7068
Brain creatine kinase isoenzyme 3105
Brain creatine kinase species specificity 3112
Brain creatine kinase vitamin E 3117
Brain creatine phosphokinase isoenzyme dystrophy 8382
Brain cyclic nucleotide phosphodiesterase activation 4872
Brain cyclic nucleotide phosphodiesterase inhibitor 4175
Brain exoribonuclease action pattern 6416
Brain fatty acid hydroxylation 5206
Brain folate binding protein 3364
Brain ganglioside GT1a 6247
Brain glucose phosphatase deoxyglucose transport 7035
Brain glycerophospholipid metab myelin microsome 4025
Brain guanylate cyclase activation hydroxylamine 596
Brain guanylate cyclase activator 7617
Brain histone lysine methyltransferase 5977
Brain histone methylation 5981
Brain microsome alkylglycerophosphate acyltransferase 1663
Brain myelin galactosyl diacylglycerol metab 5864
Brain neoplasm myelin glycosphingolipid 2777
Brain phosphodiesterase regulator cation 4108
Brain phospholipid formation serine 260
Brain protein kinase 7603
Brain protein kinase precursor protease 7610
Brain protein kinase synaptosome 5164
Brain protein phosphorylation 5155
Brain sphingomyelinase 3805
Brain synapse glycoprotein 786
Brain synaptic membrane sialidase 2412
Brain tubulin formation development 1819
Bromoacetazolamide carbonic anhydrase 5227
Bromoacetylthyroxine prealbumin affinity labeling 6076
Bromodeoxyuridine DNA methylcytosine hepatoma 5509
Bromoprogesterone corticosteroid binding globulin 1895
Brush border aminopeptidase intestine 4922
Bungarotoxin cholinergic receptor nerve 8629
Butylisocyanide Hb binding pressure 4102
Butyryl cyclic AMP metab kidney 6675
Caffeine calcium transport sarcoplasm 1938
Calcium acetylneuraminate binding 4533
Calcium adenylate cyclase leukocyte 1901
Calcium ATPase conformation sarcoplasmic reticulum 3044
Calcium ATPase muscle development 318
Calcium ATPase muscle potassium 1620
Calcium binding protein intestine 4145 8677
Calcium binding site troponin C 6356
Calcium cyclic AMP catecholamine liver 8645
Calcium DNA polymerase extn 4011
Calcium endoplasmic reticulum binding adipocyte 927
Calcium erythrocyte membrane polypeptide 6617
Calcium estrogen receptor transforming factor 1358
Calcium interaction adenylate cyclase 5677
Calcium liver phosphorylase adrenergic 2662
Calcium methylene ATP sarcoplasmic reticulum 3262
Calcium mitochondria ATP glucocorticoid 1217
Calcium permeability sarcoplasmic reticulum 1950
Calcium phosphodiesterase modulator protein 7440
Calcium phospholipase A2 conformation 6011
Calcium phosphorylase protein kinase 7449
Calcium plasminogen activator formation cell 6256
Calcium protease activation proenzyme brain 7610
Calcium proteinase platelet 5602
Calcium prothrombin binding conformation 840
Calcium pyruvate carboxylase mitochondria 5372
Calcium regulation cyclic AMP phosphodiesterase 5609
Calcium sodium transport heart veratridine 6112
Calcium transport ATPase heart 3315
Calcium transport mitochondria liver 4539
Calcium transport parotid adrenergic cholinergic 3629
Calcium transport protein phosphorylation synaptosome 2764
Calcium transport sarcoplasmic reticulum 994 1938 4210
Calcium transport sarcoplasmic reticulum temp 8567
Calcium troponin C binding thermodn 2452
Calcium uptake fibroblast microsome 6304
Calcium uterus microsome prostaglandin 1576
Calf histone antibody Drosophila 3099
Calorimetry ADP myosin binding 8085
Calorimetry lipid phase transition Escherichia 4749
Calorimetry microsome membrane structure 2929
Canavanine inhibition arginine kinase Manduca 3679
Cancer serum galactosyltransferase 1807
Candida urea amidolyase 1628
Carbaminohemoglobin carbon monoxide diphosphoglycerate 2234
Carbamoyltransferase aspartate succinate binding 2262
Carbamoyltransferase ornithine pyridoxal phosphate 4276
Carbamoyltransferase ornithine Reye syndrome 6464
Carbamyl phosphate synthetase adenosine polyphosphate 3558
Carbamyl phosphate synthetase complex 6379
Carbohydrate alk phosphatase Bacillus 6806
Carbohydrate antigen HLA 7555
Carbohydrate diet glucose phosphate dehydrogenase 7796
Carbohydrate Hb AIc structure 2992
Carbohydrate interferon circulation survival 8336
Carbohydrate RNase conformation stability 8358
Carbohydrate thyroglobulin glucuronate 5424
Carbohydrates
See also Monosaccharides, Polysaccharides, Pyranoses, Sugars, etc.
Carbon dioxide deuterohemoglobin binding 4225
Carbon dioxide Hb subunit oxygen 2952
Carbon dioxide species preprothrombin carboxylase 7738
Carbon dioxide Tetrahymena leucine lipid 3402
Carbon monoxide binding hemoprotein 199
Carbon monoxide carbaminohemoglobin 2234
Carbon monoxide cytochrome P450 redox 4755
Carbon monoxide hemoprotein 5498
Carbon monoxide reaction heme kinetics 7475
Carbon monoxide reaction myoglobin 7447
Carbon 13 NMR lysozyme 1786 1795
Carbonate transferrin copper ESR 6090
Carbonic anhydrase bromoacetazolamide 5227
Carbonic anhydrase erythrocyte bicarbonate 3881
Carbonic anhydrase isoenzyme erythrocyte 555
Carbonic anhydrase mechanism oxygen exchange 3332
Carbonyl compd Hb oxygen sickling 8542
Carbonylhemoglobin conformation photolysis 5783
Carboxyglutamate formation preprothrombin vitamin K 7738
Carboxykinase phosphoenolpyruvate activator protein 1431
Carboxykinase phosphoenolpyruvate messenger RNA translation 8398
Carboxylase acetyl CoA inhibition liver 5483
Carboxylase acetyl CoA regulation 1748
Carboxylase methylmalonyl CoA structure 1490
Carboxylase preprothrombin carbon dioxide species 7738
Carboxylase propionyl CoA mechanism 8338
Carboxylase pyruvate acetyl CoA 51
Carboxylase pyruvate calcium mitochondria 5372
Carboxylase ribulose bisphosphate inhibition 8344
Carboxylase ribulose bisphosphate Rhodopseudomonas 943
Carboxypeptidase A active site thermolysin 7704
Carboxypeptidase alanine kinetic mechanism 2934
Carboxypeptidase alanine penicillin hydroxylamine 7525
Carcinogen nuclease Pseudomonas 8740
Carcinoma glycerol phosphate dehydrogenase 5575
Carcinoma protein kinase cyclic AMP 6335
Cardiac muscle differentiation correction of page 6082 2161
Carnitine acyltransferase animal tissue 7930
Carnitine biosynthesis Neurospora methyltransferase 5651
Carnitine pathway Neurospora 7437
Carp methemoglobin EPR 1327
Cartilage collagen sequence heterogeneity 639
Cartilage hyaluronate nose 420
Cartilage proteoglycan mol motion 3617
Cartilage proteoglycan mucopolysaccharide distribution 1971
Cartilage proteoglycan polydispersity 1980
Catalase polyethylene glycol immunol 3582
Catecholamine binding brain 6450
Catecholamine cholera toxin erythrocyte 7132
Catecholamine cyclic AMP liver liver calcium 8645
Catecholamine liver enzyme 528
Catecholamine potassium efflux parotid 5472
Cation calcium transport ATPase 3315
Cation complex concanavalin histidine 3141
Cation DNA replication 3605
Cation enzyme active site 5183
Cation erythrocyte cholera toxin 7132
Cation phosphodiesterase regulator binding 4108
Cation transport mitochondria contraction 7932
Cation tryptophanase activation 1852
Caulobacter RNA polymerase 4157
CD peroxidase hematin analog 8222
CD phage fd protein liposome 6253
Cell adhesion embryo antigen 6835
Cell adhesion retina protein 6841
Cell animal amino acid transport 2675
Cell animal purine ribosomal RNA 5350
Cell bone marrow alloantigen structure 6201

Cell cycle fibroblast DNA formation 4762
Cell cycle histone disulfide group chromatin 4962
Cell DNA sterol formation 409
Cell glycoprotein agglutinin resistance 1107
Cell growth amino acid transport 2680
Cell HeLa methylguanosine dinucleotide pyrophosphatase 2815
Cell lymphoid membrane nucleus 2134
Cell membrane adenosine phosphoroglycerol formation 1719
Cell membrane adipose 6229
Cell membrane ATPase 2450
Cell membrane ATPase potassium 3035
Cell membrane glycoprotein adipose 6236
Cell membrane phospholipid oligosaccharide formation 4250
Cell membrane potential cyclic AMP *Neurospora* 7146
Cell membrane receptor IgE 704
Cell plasminogen activator formation calcium 6256
Cell receptor disulfide hybrid protein 1505
Cell transport cyclic nucleotide animal 2010
Cell wall galactomannan structure 2584
Cell wall Micrococcus teichuronic formation 3466
Cell wall Micrococcus teichuronic intermediate 3460
Cellulase pea substrate specificity 1402
Cellulose DNA deriv RNA formation 5615
Centrifugation gradient chromatin sepn 2630
Ceramide metab brain 7068
Cerebellum protein kinase 7603
Cerebratulus toxin structure 3328
Cervix mucin structure 7788
Chaotropic agent dihydroorotate dehydrogenase 3379
Charon phage Escherichia ribosomal protein gene 7344
Charon vector phage ribosome protein gene 7355
Chemotaxis glutamate methyl ester protein 3214
Chick embryo PZ peptidase 4855
Chicken apolipoprotein sequence 250
Chicken oviduct endoplasmic reticulum enzyme 7901
Chicken parvalbumin structure 2834
Chitin synthetase Mucor chitosome 3338
Chitosome chitin synthetase Mucor 3338
Chlamydomonas tubulin immunoassay 383
Chloride protein formation inhibition 4007
Chloroalanine inhibition amino acid transaminase 3170
Chlorobiphenyl microsome enzyme induction 6373
Chlorodibenzodioxin aldehyde dehydrogenase induction 6169
Chlorodibenzodioxin cytochrome P450 2839
Chlorodibenzodioxin receptor hydrocarbon hydroxylase 8981
Chlorophyll formation magnesium protoporphyrin 4022
Chlorophyll formation protoporphyrin 8347
Chloroplast chlorophyll formation precursor 4022
Chloroplast photophosphorylation coupling factor 1814
Chloroplast photophosphorylation oxygen exchange 6769
Chloroplast structure 4564
Chlorosuccinimide urea protein tryptophan cleavage 4976
CHO cell acetylglucosaminyltransferase 3926
CHO cell lipid parinarate incorporation 7916
Cholate CoA ligase fatty acid 1167
Cholera toxin adenylate cyclase 3766
Cholera toxin erythrocyte catecholamine 7132
Cholera toxin peptide sequence 7249 7257
Choleragen mechanism ADP ribosyltransferase arginine 2455
Choleragen protomer liposome permeability 797
Cholestasis lipoprotein plasma property 2113
Cholestene sterol formation inhibition 8975
Cholesterol blood platelet cyclic AMP 3310
Cholesterol cytochrome P 450 8788
Cholesterol ester lipoprotein hypercholesterolemia 7288
Cholesterol ester metab adrenal lipoprotein 1771
Cholesterol formation enzyme liver 5852
Cholesterol formation kidney 548
Cholesterol formation liver 4667
Cholesterol formation liver fatty acid 2822
Cholesterol formation liver ketocholesterol 5186
Cholesterol formation liver lipoprotein 6581 6856
Cholesterol formation microsome cytochrome b5 2797
Cholesterol formation organ physiol 3646
Cholesterol lipoprotein hydroxymethylglutaryl CoA reductase 2726
Cholesterol lipoprotein receptor steroid adrenal 4861
Cholesterolemia coenzyme reductase leukocyte 644
Cholesteryl ester triolein phase NMR 8071
Cholestyramine hydroxymethylglutaryl CoA reductase 6145
Choline acetyltransferase kinetics mechanism 4796
Choline phosphate cytidylyltransferase liver 7673
Cholinephosphotransferase diacylglycerol 3050
Cholinergic calcium transport parotid 3629
Cholinergic muscarinic receptor heart thyroid 7444
Cholinergic receptor agonist interaction kinetics 7648
Cholinergic receptor nerve bungarotoxin 8629
Choloyl CoA synthetase fatty acid 1167
Chondrocyte chondroitin sulfate formation 6316 8292
Chondrocyte development proteoglycan 6600
Chondrocyte UDP glucuronate decarboxylase 6707
Chondroitin sulfate E structure squid 4570
Chondroitin sulfate formation chondrocyte 6316 8292
Chondroitin sulfate invertebrate 2254
Chondroitin sulfate proteoglycan cartilage 1971
Chorioic gonadotropin peptide sequence 5386
Chorionic gonadotropin peptide sequence 5393
Choroid plexus folate binding protein 3364
Chromatin
See also Nucleohistone
Chromatin concanavalin A binding 7062
Chromatin DNA nuclease DNase 7635
Chromatin histone disulfide group cell cycle 4962
Chromatin nucleosome acetylation histone 5962
Chromatin nucleosome spacing heterogeneity 8269
Chromatin nucleosome structure processing 4729
Chromatin sepn gradient centrifugation 2630
Chromatin structure RNase H1 8934
Chromatin transcription gene expression 2396
Chromatium high potential protein 7802
Chromatog affinity globin messenger RNA 457
Chromatog affinity isocitrate dehydrogenase 3671
Chromatog affinity lectin 57
Chromatog affinity zinc chelate 5934
Chromatog hydrophobic membrane protein sepn 8957
Chromatog interferon 6585
Chromatography
See also Affinity chromatography
Chromatog. affinity sialyltransferase 2356
Chromatophore coupling factor ATPase Rhodospirillum 8747
Chromatophore ferredoxin Rhodospirillum 7453
Chromium ATP hexokinase inhibition 1844
Chromium pyruvate kinase nucleotide complex 5967
Chromium pyruvate kinase site 5183
Chymotrypsin acylation phenyl ester 1633
Chymotrypsin anhydro residual esterase activity 8423
Chymotrypsin purulent sputum 1917
Cibacron blue F3GA RNA polymerase 5724
Circulating thymic factor blood 8040
Circulating thymic factor peptide sequence 8045
Circulation cholesterol formation organ 3646
Circulation interferon carbohydrate survival 8336
Citrate lyase interaction hydroxycitrate isomer 7583
Citrate lyase prosthetic group 6064
Citrate transport regulation mitochondria bicarbonate 5661
Citric acid cycle stomach mucosa 8572
Cleavage protein tryptophan chlorosuccinimide urea 4976
Clostridium endoacetylglucosaminidase specificity 6687
Clostridium ferredoxin NMR 2245
Clostridium glycine reductase selenoprotein 5337
Clostridium Iron protein nitrogenase 7081
Clostridium iron protein nitrogenase 7089 7093
Clostridium ketoaminohexanoate cleavage enzyme 20
Clostridium protease adenylate cyclase 2039
Clostridium pyruvate ferredoxin oxidoreductase 2657
Clotting coagulogen Limulus 4773
Clotting enzyme zymogen Limulus 2178
Clotting factor X activation VII 8481
Clotting factor XI activation 6432
CMP polymer RNA termination 1381
CoA acyl inhibition carboxylase 5483
CoA binding isopropylmalate synthase 4085
CoA ligase cholate fatty acid 1167
Coagulation blood factor VIII sialate 5538
Coagulation factor X reaction manganese 4758
Coagulation factor XIIIa mechanism 3752
Coagulogen purifn clotting Limulus 4773
Cobalt concanavalin complex 3141
Cobalt Hb myoglobin ESR 620
Cobalt heme metab liver 219
Cobalt iron Hb hybrid EPR 8639
Cobalt peroxidase 6268
Cobalt phosphate interaction alk phosphatase 7053
Codon anticodon recognition valine 471
Codon anticodon recognition valine codon correction of page 471 5175
Codon termination recognition 4435
Coeff soly diffusion adenosine monophosphate correction of page 864 5175
Coenzyme alc dehydrogenase kinetics 3493
Coenzyme dehydrogenase NAD analog 4125
Coenzyme diol dehydratase analog 963
Coenzyme reductase leukocyte cholesterolemia 644
Colchicine tubulin binding podophyllotoxin 1134
Colchicine tubulin dimer structure 7006
Cold adipose protein kinase 1064
Colicin E1 Escherichia membrane depolarization 5491
Colipase lipase membrane model 4319
Collagen aspartate aminotransferase immobilization 7919
Collagen bone fibroblast tunicamycin 955
Collagen crosslinking penicillamine 254
Collagen fibroblast sarcoma virus 8863
Collagen formation 8023
Collagen formation transfer RNA glycine 2447
Collagen Nereis cuticle fragment 8018
Collagen sequence heterogeneity cartilage 639
Colony stimulating factor lung purifn 1998
Colony stimulating factor purifn 4305
Colostrum galactoside sialyltransferase 2363
Colostrum sialyltransferase 2356
Complement C3a C5a amino acid sequence 1826
Complementarity Ig amino acid distribution 6609
Complementary DNA prepn RNA globin 2182
Complementation RNase barnase peptide 3252
Composition
See also Amino acid composition and Carbohydrate composition
Computer application Ig amino acid 6609
Conalbumin fractionation carbohydrate structure 5437
Conalbumin messenger RNA oviduct estrogen 2060
Concanavalin A binding egg 1286
Concanavalin A chromatin binding 7062
Concanavalin A tyrosine aminotransferase 2717
Concanavalin agarose peroxidase thyroid 1264
Concanavalin cation complex histidine 3141
Concanavalin resistance membrane mannosyl lipid 3561
Conformation alc dehydrogenase pH 433
Conformation amino acid oxidase 8035
Conformation aspartate transcarbamylase 2881
Conformation fibrinogen chain antigen 8917
Conformation Ig amino acid position 6609
Conformation phosphoglycerate dehydrogenase 1527 1539

Conformation staphylococcal nuclease hybridization 125
Conformation trypsin inhibitor denaturation 5239
Connective tissue aneurysm 939
Copper glycyl alaninato mol structure 8840
Copper transferrin anion ESR 6090
Copper tyrosine complex microsome dealkylation 5061
Corn trypsin inhibitor 8105
Cornea glycosaminoglycan 6861
Coronary artery arachidonate metab 1123
Corpus luteum gonadotropin receptor 8869
Correndonuclease Micrococcus 6280
Correndonuclease Micrococcus repair UV irradn 6294
Corticosteroid binding globulin 1895
Corticosteroid hepatoma aminotransferase cyclic AMP 3891
Corticosteroid pituitary culture growth hormone 3870
Corticosteroidogenesis ACTH lipoprotein receptor 4861
Cortisol corticosteroid binding globulin 1895
Cortisol histidase liver 3234
Cotton oligosaccharide formation lipid 2444
Coupling factor mitochondria subunit 4743
Coupling factor photophosphorylation chloroplast 1814
Coupling factor photophosphorylation proton transport 8007
Creatine kinase active site 1197
Creatine kinase brain species specificity 3112
Creatine kinase isoenzyme brain 3105
Creatine kinase methylmercapto deriv kinetics 1202
Creatine kinase muscle brain vitamin E 3117
Creatine kinase photolabel reagent 4293
Creatine phosphokinase muscular dystrophy 8382
Cro protein bacteriophage lambda 6177
Cross linking reagent receptor 1566
Crosslink DNA Escherichia ATP 7023
Crosslinking collagen penicillamine 254
Crosslinking erythrocyte membrane protein 8524
Crosslinking protein nitroazidophenylcystamine dioxide 5514
Crotalus phospholipase A2 peptide sequence 4913
Crotonase heart characterization 542
Cryopptn Ig myeloma solute 8002
Crystal structure arabinose binding protein 5142
Crystal structure cytochrome c 4619
Crystal structure cytochrome c tuna 759 776
Crystal structure fructose diphosphatase 5556 7031
Crystal structure hexokinase 4494
Crystal structure pepsinogen 8728
Crystal structure phycobiliprotein 8258
Crystal structure RNase S 5599
Crystal structure trypsin inhibitor soybean 1099
Crystn pepsinogen 8728
CTP binding aspartate transcarbamoylase 8136
Cuticle Nereis collagen fragment 8018
Cyanogen bromide cytochrome b5 cleavage 5986
Cyclase adenyl liver glucagon 2790
Cyclase adenylate activation cation 5957
Cyclase adenylate activation guanine nucleotide 5180
Cyclase adenylate activation guanyl nucleotide 7909
Cyclase adenylate adrenergic receptor 799
Cyclase adenylate adrenergic receptor lymphoma 5761 5776
Cyclase adenylate brain fluoride calcium 5677
Cyclase adenylate cholera toxin 3766
Cyclase adenylate component 6966
Cyclase adenylate glucagon receptor liver 5947
Cyclase adenylate glucagon receptor regulation 5942
Cyclase adenylate heart unmasking 7905
Cyclase adenylate hydrophobicity 8957
Cyclase adenylate leukocyte 1901
Cyclase adenylate nucleotide protein complex 2784
Cyclase adenylate protease Clostridium 2039
Cyclase adenylate regulation erythrocyte 7224
Cyclase adenylate regulation GTP adipocyte 7964
Cyclase adenylate regulation liver 5951
Cyclase adenylate regulator cation binding 4108
Cyclase guanylate activation hydroxylamine brain 596
Cyclase guanylate activator brain 7617
Cyclase guanylate cyclic AMP formation 3136
Cyclase guanylate fatty acid 1279
Cyclase guanylate magnesium maganese 4298
Cyclase guanylate methylnitrosoguanidine liver 5804
Cyclic AMP binding nucleus neoplasm 6349
Cyclic AMP binding protein 6494
Cyclic AMP binding protein liver 677
Cyclic AMP binding protein neoplasm 6342
Cyclic AMP blood platelet cholesterol 3310
Cyclic AMP brain protein phosphokinase 5155
Cyclic AMP cell membrane potential *Neurospora* 7146
Cyclic AMP detn heart 1041
Cyclic AMP dexamethasone hepatoma aminotransferase 3891
Cyclic AMP dibutyryl metabolite liver 4287
Cyclic AMP erythrocyte cholera toxin 7132
Cyclic AMP formation guanylate cyclase 3136
Cyclic AMP glucagon yolk sac 7151
Cyclic AMP glycogen synthase kinase 2384
Cyclic AMP histidase liver 3234
Cyclic AMP insulin pancreas neoplasm 92
Cyclic AMP kidney metab 6675
Cyclic AMP LH receptor testis 9002
Cyclic AMP liver catecholamine calcium 8645
Cyclic AMP liver hormone 8066
Cyclic AMP messenger RNA 655
Cyclic AMP neuroblastoma protein 4850
Cyclic AMP obesity hyperglycemia lipase 7243
Cyclic AMP ovary gonadotropin 8869
Cyclic AMP phosphodiesterase egg 4662
Cyclic AMP phosphodiesterase inhibitor 6322
Cyclic AMP phosphodiesterase regulation parvalbumin 5609
Cyclic AMP phosphorylase activation 7488
Cyclic AMP prostaglandin astrocytoma 6018
Cyclic AMP protein kinase 910 3854 7140 7690
Cyclic AMP protein kinase carcinoma 6335
Cyclic AMP protein kinase egg 1712
Cyclic AMP pseudoplasmodia slime mold 4073
Cyclic AMP soly diffusion 864
Cyclic AMP thymocyte adenosine 5324
Cyclic AMP troponin phosphorylation kinase 851
Cyclic AMP tyrosine aminotransferase dexamethasone 6783
Cyclic GMP phosphodiesterase lung 4078
Cyclic GMP phosphodiesterase specificty 5211
Cyclic GMP protein kinase 4269 4347 6443
Cyclic nucleotide animal cell transport 2010
Cyclic nucleotide phosphodiesterase activation lysolecithin 4872
Cyclic nucleotide phosphodiesterase activator 2437
Cyclic nucleotide phosphodiesterase hepatoma dexamethasone 1448
Cyclic nucleotide phosphodiesterase inhibitor brain 4175
Cyclic nucleotide phosphodiesterase modulator protein 7440
Cyclic nucleotide phosphodiesterase protein testis 8415
Cyclic nucleotide phosphodiesterase purifn 43
Cyclohydrolase GTP liver 5750
Cyclohydrolase methenyltetrahydrofolate complex liver 1117
Cycloleucine transport liver 148
Cyclooxygenase fatty acid induction 6591
Cysteine dihydrofolate reductase 6871
Cysteine ferredoxin NMR 2245
Cysteine pathway genetics leukemia cell 7184
Cysteinyl FAD cytochrome c552 4767
Cystic fibrosis macroglobulin trypsin complex 7923
Cystine auxotroph cystothionase formation 7184
Cystothionase formation cystine auxotroph 7184
Cytidine deamination transfer RNA 2551 2566
Cytidine uridine transport Escherichia 2492
Cytidylyltransferase choline phosphate liver 7673
Cytochalasin binding erythrocyte membrane 5464
Cytochalasin glucose transport erythrocyte 5456
Cytochalasin hexose transport hepatoma 4191
Cytochasin B cell transport heptoma 4185
Cytochrome adrenodoxin reductase ferricyanide 2908
Cytochrome b5 cholesterol formation microsome 2797
Cytochrome b5 cleavage cyanogen bromide 5986
Cytochrome b5 exchange liposome 4842
Cytochrome b5 peptide sequence 8549
Cytochrome b5 reductase phospholipid vesicle 5656
Cytochrome c conformation transition 8778
Cytochrome c crystal structure 4619
Cytochrome c crystal structure tuna 759 776
Cytochrome c gene horse donkey 830
Cytochrome c iodotyrosine deriv 7743
Cytochrome c manganese property 6156
Cytochrome c metab muscle exercise 416
Cytochrome c peptide fragment complex 1367
Cytochrome c peroxidase kinetics 919
Cytochrome c reductase alc oxidn 7124
Cytochrome c spin form ESR 574
Cytochrome c yeast tryptophan 6577
Cytochrome c552 cysteinyl FAD 4767
Cytochrome o Vitreoscilla 1834
Cytochrome oxidase carbon monoxide 5498
Cytochrome oxidase liposome 3208
Cytochrome oxidase liposome respiratory control 6981
Cytochrome P 450 steroid 8788
Cytochrome P450 alc oxidn 7124
Cytochrome P450 development monooxygenase 4712
Cytochrome P450 electron exchange 4431
Cytochrome P450 heme ligand 3637
Cytochrome P450 immunol microsome 3255
Cytochrome P450 microsome membrane 293
Cytochrome P450 multiple form 3970
Cytochrome P450 redox carbon monoxide 4755
Cytochrome P450 reductase structure 437
Cytochrome P450 tetrachlorodibenzodioxin 2839
Cytoplasm hepatoma protein 3626
Cytoplasm hydroxycholecalciferol binding protein blood 2515
Cytosol ATPase Tetrahymena 7548
Daunorubicin DNA polymerase bacteriophage 2670
Dealkylation microsome copper tyrosine complex 5061
Deaminase adenosine erythrocyte 110
Deaminase adenosine erythrocyte kidney 6409
Deaminase adenylate potassium ATP 1606
Deaminase AMP myosin meromyosin 1869
Deaminase deoxycytidylate DNA replication phage 8603
Deaminase threonine subunit structure 2206
Deamination cytidine transfer RNA 2551 2566
Deazariboflavin redox protein redn 5612
Decarboxylase adenosylmethionine Saccharomyces pyruvoyl residue 8212
Decarboxylase dihydroxyphenylalanine transamination 7168
Decarboxylase ornithine multiple form 2860
Decarboxylase ornithine turnover 2866
Decarboxylase UDP glucuronate chondrocyte 6707
Decarboxylase UDP glucuronate multiple form 8013
Dehydratase carbonate bromoacetazolamide 5227
Dehydratase carbonate isoenzyme erythrocyte 555
Dehydratase diol coenzyme analog 963
Dehydratase dTDP glucose stereochem 8113
Dehydratase pretyrosine Pseudomonas 5839
Dehydrogenase alc coenzyme kinetics 3493
Dehydrogenase alc conformation pH 433
Dehydrogenase alc interaction NAD analog 8990
Dehydrogenase alc kinetics human liver 1464
Dehydrogenase aldehyde induction liver 6169

Dehydrogenase coenzyme NAD analog 4125
Dehydrogenase dihydroorotate detergent 3379
Dehydrogenase glucose phosphate arginine 3745
Dehydrogenase glucose phosphate formation liver 7796
Dehydrogenase glucose phosphate isomerase immobilized 2611
Dehydrogenase glucose phosphate metab uterus 3709
Dehydrogenase glutamate aminotransferase aspartate 1250
Dehydrogenase glutamate Neurospora peptide sequence 8160
Dehydrogenase glutamate peptide sequence Neurospora 8142 8150 8174 8182 8196
Dehydrogenase glutarate semialdehyde induction Pseudomonas 7987
Dehydrogenase glutarate semialdehyde Pseudomonas 7979
Dehydrogenase glycerol phosphate multiple form 5575
Dehydrogenase gulonate liver 2545
Dehydrogenase homoserine aspartate kinase 5332
Dehydrogenase homoserine aspartokinase active fragment 7685
Dehydrogenase hydroxy steroid kinetics 205
Dehydrogenase hydroxy steroid Pseudomonas 3775 3784
Dehydrogenase isocitrate affinity chromatog 3671
Dehydrogenase isocitrate methylisocitrate 2702
Dehydrogenase ketoglutarate regulation Acetobacter 2940
Dehydrogenase lactate conformation substrate 8775
Dehydrogenase lactate Escherichia 5820
Dehydrogenase lactate isoenzyme regulation salmon 5708
Dehydrogenase lactate structure dogfish 1799
Dehydrogenase lactate subunit interaction 6163
Dehydrogenase lipoamide mechanism 3199
Dehydrogenase malate dissocn sulfhydryl 6038
Dehydrogenase malate subunit interaction 755
Dehydrogenase methylenetetrahydrofolate complex liver 1117
Dehydrogenase phosphoglycerate kinetics mechanism 1539
Dehydrogenase phosphoglycerate serine glycine 1527
Dehydrogenase phosphorylase phosphate analog 5925
Dehydrogenase pyruvate palmitoylcarnitine mitochondria 1552
Dehydrogenase pyruvate regulation bicarbonate 5661
Dehydrogenase succinate mitochondria membrane 1582
Dehydrogenase succinate purifn 6963
Dehydrogenase succinate Rhodospirillum 7461
Dehydrogenase UDP glucose mechanism 1320
Deiminase arginine Mycoplasma 2615
Deiodination thyroid hormone hepatocarcinoma 4458
Demethylubiquinone methyltransferase liver 4017
Denaturation alk phosphatase thermodn 7042
Denaturation trypsin inhibitor conformation 5239
Denitrification Pseudomonas 212
Deoxyadenosine deoxyguanosine kinase purifn 8235
Deoxyadenosine kinase active site Lactobacillus 8240
Deoxyadenosylcobalamin analog coenzyme 963
Deoxycytidine kinase active site Lactobacillus 8240
Deoxycytidylate deaminase DNA replication phage 8603
Deoxyglucose interferon abnormal formation 4425
Deoxyglucose transport brain glucose phosphatase 7035
Deoxyguanosine deoxyadenosine kinase purifn 8235
Deoxynucleoside kinase active site Lactobacillus 8240
Deoxynucleotide kinase gene promoter phage 2304
Deoxyribonucleotide pyrimidine synthesis DNA 6031
Deoxyvalylfructose Hb AIc 2992
Dephosphorylation phosphoprotein alk phosphatase 6082
Dephosphorylation phosphoprotein kinase phosphoprotein phosphatase 2855
Dephosphorylation RNA polymerase II phosphorylation 6750
Desaturase temp Bacillus 3660
Desaturation eicosatrienoyl lecithin microsome 68
Desulfovibrio flavodoxin peptide sequence 1453
Detergent ATPase adenylate cyclase 7905
Detergent delipidated ATPase reactivation 3551
Detergent dihydroorotate dehydrogenase 3379
Detergent insol peptide automatic sequencing 2218
Detergent pyruvate oxidase ligand 5990
Deuteroheme Hb ligand binding 4225
Development adipose protein kinase 1064
Development ATPase sarcoplasmic reticulum 318
Development brain tubulin formation 1819
Development chondrocyte proteoglycan 6600
Development Dictyostelium surface sheath 820
Development hydroxybutyrate respiration lipid formation 5222
Development monooxygenase cytochrome P450 4712
Development pancreas RNA 7391
Development polysome fatty acid synthetase 7015
Development protein glycosylation oviduct 4330
Development protein kinase adipose tissue 5356
Development Schizophyllum protease 8435
Development tryptophan oxygenase liver glucocorticoid 4354
Dexamethasone cyclic AMP hepatoma aminotransferase 3891
Dexamethasone cyclic nucleotide phosphodiesterase hepatoma 1448
Dexamethasone hydroxymethylglutaryl reductase induction 3272
Dexamethasone pituitary culture growth hormone 3870
Dexamethasone receptor lymphocyte phytohemagglutinin 2972
Dexamethasone tyrosine aminotransferase induction 6783
Dextran sulfate lecithin interaction 1243
DGTP com oligoribonucleotide contamination 8498
Diabetes glucagon liver membrane 7434
Diabetes Hb AIb 2998
Diacyl glycerophosphate Mycobacterium 6682
Diacylglycerol cholinephosphotransferase ethanolaminephosphotransferase 3050
Diacylglycerol galactosyl metab myelin brain 5864
Dibutyryl cyclic AMP metabolite liver 4287
Dictyostelium protein analysis 6510
Dictyostelium ribosomal RNA 3952
Dictyostelium surface sheath development 820
Dictyostelium transfer RNA development 694
Diet carbohydrate glucose phosphate dehydrogenase 7796
Differentiation adipocyte hormone sensitivity 3554
Differentiation heart embryo RNA 6521
Diffusion cyclic AMP 864
Digitonin ATPase conformation 8278
Dihydrofolate acid dissocn 3724
Dihydrofolate reductase sulfhydryl Escherichia 6871
Dihydrofolate reductase trimethoprim plasmid 2319
Dihydroneopterin triphosphate synthetase liver 5750
Dihydroorotase complex 6379
Dihydroorotate dehydrogenase detergent 3379
Dihydroxyacetone phosphate acyltransferase harderian gland 6363
Dihydroxyphenylalanine decarboxylase transamination 7168
Dihydroxyvitamin D3 binding protein intestine 4501
Dihydroxyvitamin D3 hydroxylation 1421
Dimethyl sulfoxide tubulin assembly 6222
Dimyristoyllecithin apolipoprotein complex 2200
Dimyristoyllecithin microvicosity fluorescence depolarization 2163
Diol dehydratase coenzyme analog 963
Dioxygenase hydroxyphenylpyruvate kinetics mechanism 5094
Dioxygenase hydroxyphenylpyruvate liver 5073
Dioxygenase hydroxyphenylpyruvate multiple form 5085
Dioxygenase indolamine mechanism superoxide 3548
Dioxygenase indoleamine kinetics mechanism 4643
Dioxygenase indoleamine superoxide complex 4637
Dioxygenase indoleamine superoxide intestine 2774
Dio9 potassium transport Schizosaccharomyces 4577
Diphenylheatriene fluorescence depolarization lecithin 2163
Diphosphatase fructose crystal structure 5556
Diphosphatase fructose turkey liver 7031
Diphosphoglycerate carbaminohemoglobin 2234
Diphtheria toxin lactogen conjugate 1515
Diplococcus endoacetylgalactosaminidase glycoprotein 8609
Diplococcus glycosidase 8615
Disaccharide lipid formation lung 2918
Disk membrane rhodopsin structure 8092
Dismutase superoxide copper tyrosine complex 5061
Dismutase superoxide paraquat Escherichia 7667
Dismutase superoxide Porphyridium 6421
Dissocn acid folate deriv 3724
Dissocn assocn globulin electrolyte 240
Disulfide dimer growth hormone 3697
Disulfide group histone chromatin cell cycle 4962
Disulfide hybrid protein cell receptor 1505
Disulfide platelet glycoprotein 2121
Disulfide protein redn enzyme 4600
Disulfide structure HLA antigen 4694
Dithionite metmyoglobin redn 4038
DNA adenovirus promoter sequence 9047
DNA adenovirus sequence 9032
DNA apurinic apyrimidinic endonuclease 1235
DNA apurinic specific enzyme 3304
DNA bacteriophage M13 structure 5916
DNA benzopyrene metab liver 6424
DNA binding Cro protein 6177
DNA binding protein serum 1881
DNA binding RNase H1 8934
DNA cell sterol formation 409
DNA cellulose deriv RNA formation 5615
DNA chromatin nuclease DNase 7635
DNA cleavage restriction endonuclease Haemophilus 7300
DNA cloning globin messenger RNA 2209
DNA complementary prepn RNA globin 2182
DNA crosslink Escherichia ATP 7023
DNA endonuclease Escherichia 2808
DNA Escherichia membrane phospholipid 4487
DNA formation animal cell purine 5350
DNA formation fibroblast cell cycle 4762
DNA formation globin messenger 2742
DNA formation NAD analog nucleus 4134
DNA globin complementary probe 5606
DNA globin messenger RNA 1908
DNA glycidaldehyde reaction 5370
DNA kinetoplast Leishmania 6208
DNA ligase phage T4 3987
DNA methylase Escherichia 7265
DNA methylcytosine hepatoma bromodeoxyuridine 5509
DNA mitochondrial replication polymerase 7888
DNA modified pyrimidine reaction nuclease 3185
DNA monkey SV40 virus 5124
DNA nuclease carcinogen mutagen 8740
DNA nucleosome structure endonuclease 3003
DNA phage replication Escherichia 2524
DNA phage T3 RNA polymerase 6485
DNA phage T4 thymine hydroxymethylcytosine 3019
DNA phosphoryl terminus detn 3176
DNA polymerase adriamycin bacteriophage 2670
DNA polymerase baker yeast 1873
DNA polymerase erythroid cell 273
DNA polymerase Escherichia subunit 6478
DNA polymerase extn calcium 4011
DNA polymerase leukemia virus 11
DNA polymerase liver HeLa mitochondria 3351

DNA polymerase mechanism phage T5 8700 8708
DNA polymerase myeloblastosis virus 1425
DNA polymerase polynucleotide biosynthesis 1932
DNA polymerase sarcoma virus 2281 2290
DNA polymerase subunit compn 6528
DNA polymerase virus binding RNA 6878
DNA protein Escherichia sepn bacteriophage 2734
DNA pyrimidine deoxyribonucleotide sy=thesis 6031
DNA pyrimidine dimer correndonuclease Micrococcus 6280
DNA pyrimidine dimer incision 6287
DNA reaction tryptophan peptide 244
DNA replication adeno virus 7940
DNA replication complex enzyme 7947
DNA replication metal 3605
DNA replication phage deoxycytidylate deaminase 8603
DNA replication phosphorylation uncouplers 1148
DNA replication virus fd 2534
DNA RNA chromatin 2630
DNA RNA polymerase heparin 5403
DNA sequence galactose operon 3538
DNA sequence recognition methylase Es=cherichia 7273
DNA sequence SV40 virus 333 355 368
DNA spacer polynucleosome 8269
DNA structure fibroblast mitosis 141
DNA superhelix density detn 291
DNA SV40 virus defective hybrid 5115
DNA SV40 virus RNA sequence 340
DNA unwinding protein Micrococcus 5398
DNA uracil glycosidase Escherichia 3286
DNA 8S mitochondria 2984
DNase apurinic apyrimidinic placenta 1235
DNase bean embryo 3304
DNase chromatin DNA 7635
DNase Escherichia mechanism ATP 499
DNase V thymus 116
Dogfish lactate dehydrogenase structure 1799
Dolichol acetylglucosamine metab 3473
Dolichyl glucosyl phosphate glucosyltransfer=ase 2271
Dolichyl mannopyranosyl phosphate metab 224
Dolichyl phosphate mannose retina hydro=genation 5619
Dolichyl phosphate oviduct estrogen 4330
Donkey horse cytochrome c gene 830
Dopachrome formation hydroxyphenylala=nine 5729
Drosophila histone antibody calf 3099
Drug binding albumin 3876
DTDP glucose dehydratase stereochem 8113
Earthworm prolyl hydroxylase specificity 7591
Echerichia membrane protein glutamate methyl ester 3214
Egg concanavalin A binding 1286
Egg cyclic AMP phosphodiesterase 4662
Egg meiosis Xenopus progesterone 1712
Ehrlich fatty acid membrane transport 6624
Eicosatrienoyl lecithin desaturation micro=some 68
Elastase inhibition fluoroacetyl peptide leukocyte 5931
Elastase pancreas detn serum 61
Elastase purulent sputum 1917
Elec field effect ESR ferredoxin 5643
Electrochem proton gradient mitochondria thermodn 8459
Electrolyte globulin assocn dissocn 240
Electron exchange cytochrome P450 4431
Electron microscopy transcarboxylase struc=ture 1500
Electron paramagnetic resonance
See EPR
See also ESR
Electron spin resonance
See ESR
See also EPR
Electron transport flavoprotein 8440
Electron transport thermodn 8455
Electrophoresis gel globin messenger RNA 2182
Electrophoresis interferon 6585
Electrophoresis proteolysis peptide mapping 1102
Elongation factor liver yeast 1471
Elongation factor manganese nucleotide 2004
Embryo cell adhesion antigen 6835
Embryo cell adhesion protein 6841
Embryo chondroitin sulfate formation 8292
Embryo fatty acid synthetase liver 7015
Embryo lectin muscle 6026
Embryo monooxygenase development 4712
Embryo muscarinic receptor heart 8692
Embryo RNA pancreas 7391
Emission spectra
See also Fluorescence and Raman spectra
Encephalitogenic protein proteolysis active site 1723
Endoacetylgalactosaminidase Diplococcus 8615
Endoacetylgalactosaminidase Diplococcus glycoprotein 8609
Endoacetylglucosaminidase specificity Clos=tridium Streptomyces 6687
Endodeoxyribonuclease bean embryo 3304
Endodeoxyribonuclease Micrococcus 6287
Endonuclease activity phosphodiesterase snake venom 8652
Endonuclease DNA apurinic apyrimidinic 1235
Endonuclease DNA Escherichia 2808
Endonuclease Escherichia substrate specifici=ty 2802
Endonuclease Micrococcus repair UV irradn 6294
Endonuclease nucleosome DNA structure 3003
Endonuclease reaction Escherichia plasmid 451
Endonuclease restriction detn 3176
Endonuclease restriction Haemophilus DNA cleavage 7300
Endonuclease ribosomal RNA maturation 1350
Endonuclease UV Micrococcus 6280
Endonuclease V Escherichia 1647
Endoplasmic reticulum calcium binding adipocyte 927
Endoplasmic reticulum protein glycosylation enzyme 7901
Energy amino acid transport Escherichia 4056
Energy charge adenylate sperm motility 8088
Energy coupling transport Escherichia mu=tant 8582
Energy potassium transport Escherichia 1394
Energy transduction phosphorylation ex=change reaction 2478
Enoyl CoA hydratase 542
Entamoeba pyruvate metab acetate 726
Enterobacter excitability producing protein 8884
Enzyme active site cation 5183
Enzyme angiotensin converting inhibition 4674
Enzyme cholesterol formation liver 5852
Enzyme clotting zymogen Limulus 2178
Enzyme DNA replication complex 7947
Enzyme Escherichia sepn 2734
Enzyme glucocorticoid receptor inactivation 7568
Enzyme glucose phosphorylation liver inani=tion 8404
Enzyme glycolytic stability erythrocyte 1829
Enzyme indole oxidizing Pseudomonas 2648
Enzyme induction hydrocarbon genetics 2827
Enzyme induction liver genetics 157
Enzyme induction lysine metab Pseudomo=nas 7987
Enzyme ketoaminohexanoate cleavage Clos=tridium 20
Enzyme kinetics inhibition equation 6438
Enzyme kinetics two substrate 4546
Enzyme lipid adipose fibroblast 2158
Enzyme mannosylmannose formation liver microsome 7235
Enzyme membrane sepn hydrophobic chro=matog 8957
Enzyme microsome induction chlorobiphenyl 6373
Enzyme multiple form nomenclature 5939
Enzyme oxalacetate metab Pseudomonas 1257
Enzyme photoaffinity label arylazidoalanine NAD 8990
Enzyme protein biosynthesis reticulocyte 3738
Enzyme protein glycosylation endoplasmic reticulum 7901
Enzyme respiratory phospholipid interaction 3194
Enzyme thiol photolabel reagent 4293
Enzyme thyroid membrane 3074
Enzyme tryptophan biosynthesis Euglena 235
Enzymes
See also Apoenzymes, Metalloenzymes, Zymogens, and specific names such as Dehydrogenase, Chymotrypsin, Isomer=ase, Kinase, Ligase, Nuclease, Phospha=tase, Polymerase, Synthetase, Transferase and Trypsin
Epididymis pyruvate metab sperm 1303
Epimerase UDP galactose inhibition 2089
Epimerase UDP galactose purifn 2082
Epinephrenine gluconeogenesis lactate liver 1831
Epinephrine adenosine metab liver 8066
Epinephrine calcium transport parotid 3629
Epinephrine cyclic AMP liver 8645
Epinephrine potassium efflux parotid 5472
Epinephrine potassium release parotid 5478
Epoxidase squalene activator protein 5381
Epoxide hydrase kinetics 3715
Epoxide hydratase stereospecificity 6328
EPR Hb iron cobalt hybrid 8639
EPR methemoglobin carp 1327
EPR protein hemoprotein 3637
Erythrocyte adenosine deaminase 110
Erythrocyte adenosine deaminase kidney 6409
Erythrocyte adenyl cyclase prostaglandin 5295
Erythrocyte adenylate cyclase regulation 7224
Erythrocyte anion transport reconstitution 2419
Erythrocyte carbonic anhydrase bicarbonate 3881
Erythrocyte carbonic anhydrase isoenzyme 555
Erythrocyte cholera toxin catecholamine 7132
Erythrocyte glucose transport cytochalasin 5456
Erythrocyte glucose transport protein 7384
Erythrocyte glycolytic enzyme stability 1829
Erythrocyte Hb oxidn xanthine oxidase 6721
Erythrocyte membrane assocn spectrin 2753
Erythrocyte membrane ATPase inactivation ozone 8537
Erythrocyte membrane cytochalasin binding 5464
Erythrocyte membrane interaction phospho=glycerate kinase 6715
Erythrocyte membrane monosaccharide transport 3131
Erythrocyte membrane polypeptide calcium 6617
Erythrocyte membrane protein crosslinking 8524
Erythrocyte membrane protein extn 6759
Erythrocyte membrane protein kinase 102
Erythrocyte membrane protein lipid site 6909
Erythrocyte membrane protein organization 5514
Erythrocyte membrane protein phosphoryla=tion 508
Erythrocyte membrane protein variant 6573
Erythrocyte membrane topog protein 712
Erythrocyte oxyhemoglobin dissocn 2331
Erythrocyte phosphofructokinase subunit structure 3515
Erythrocyte phosphoglycolate phosphatase 2441
Erythrocyte sodium permeability protein 6764
Erythroid cell nucleotide polymerase 273
Erythropoietin purifn urine 5558
Escherichia acetylglutamate synthetase 3295
Escherichia amino acid formation 3392
Escherichia amino acid transport energy 4056
Escherichia antibiotic phosphatidylserine synthetase 5911
Escherichia arabinose binding protein 5135 5142
Escherichia asparaginase active stie 2072
Escherichia ATP DNA crosslink 7023
Escherichia biotin carboxyl carrier protein 3934
Escherichia coli transmembrane mutations correction of page 4056, 8773
Escherichia dihydrofolate reductase sulf=hydryl 6871
Escherichia DNA endonuclease 2808
Escherichia DNA methylase 7265
Escherichia DNA polymerase subunit 6478
Escherichia DNA protein sepn bacteriophage 2734
Escherichia DNase mechanism ATP 499
Escherichia endonuclease substrate specifici=ty 2802

Escherichia endonuclease V 1647
Escherichia exonuclease III specificity 4786
Escherichia exoribonuclease 8950
Escherichia galactosidase degrdn intermediate 8350
Escherichia galactoside transport 7657
Escherichia glutamate aspartate transport 9055
Escherichia lactate dehydrogenase 5820
Escherichia lipid phase transition calorimetry 4749
Escherichia lipoprotein outer membrane 2324
Escherichia membrane depolarization colicin E1 5491
Escherichia membrane energy proton oxygen 5875
Escherichia membrane fluidity lipopolysaccharide 2077
Escherichia membrane galactoside transport 7662
Escherichia membrane lipid fatty acid 8797
Escherichia membrane nitrate reductase 1696
Escherichia membrane oligosaccharide 4250
Escherichia membrane phospholipid macromol 4487
Escherichia metab regulation nucleotide charge 4151
Escherichia methylase DNA sequence recognition 7273
Escherichia NADPH formation 3382
Escherichia ornithine transcarbamylase regulation orotate 5928
Escherichia periplasmic space 7850
Escherichia phage DNA replication 2524
Escherichia phosphoenolpyruvate synthetase property 3121
Escherichia phosphoprotein phosphatase 4416
Escherichia plasmid reaction endonuclease 451
Escherichia polynucleotide phosphorylase 6885
Escherichia potassium transport energy 1394
Escherichia protein elongation factor gene 2154
Escherichia protein formation factor 6889
Escherichia protein X gene recA 6251
Escherichia pseudouridine transfer RNA 6310
Escherichia ribonucleoside diphosphate reductase 6132
Escherichia ribonucleotide reductase 536
Escherichia ribosomal protein gene Charon phage 7344
Escherichia ribosomal protein gene lambda phage 7323
Escherichia ribosomal protein gene mapping 7365
Escherichia ribosome protein gene 7337
Escherichia ribosome protein gene promoter 7355
Escherichia RNase II 8945
Escherichia sugar transphosphorylation 8908
Escherichia superoxide dismutase paraquat 7667
Escherichia transfer RNA nucleotidyltransferase 5584
Escherichia transfer RNA precursor 2311
Escherichia transport mutant energy coupling 8582
Escherichia tryptophan synthase mutant 4527
Escherichia tryptophan synthase subunit sepn 6594
Escherichia tryptophanase arginine 7598
Escherichia UDP glucose oligosaccharide formation 6299
Escherichia unsatd fatty acid oleate 5488
Escherichia uracil DNA glycosidase 3286
Escherichia uracil transport phosphoribosyltransferase 7620
Escherichia uridine cytidine transport 2492
Eschericia ribosomal RNA formation 3064
ESR copper transferrin anion 6090
ESR cytochrome c 574
ESR elec field effect ferredoxin 5643
ESR hemoprotein cobalt 620
ESR manganese cytochrome c 6156
ESR mitrosylhemoglobin Kansas 1331
Esterase residual activity anhydrochymotrypsin 8423
Estradiol glucose phosphate dehydrogenase metab 3709
Estradiol histidase liver 3234
Estradiol receptor kinetics 8856
Estradiol receptor uterus nucleus 8206
Estradiol RNA polymerase uterus 1092 4607
Estradiol vitellogenin messenger RNA 7913 8310
Estrogen binding protein preputial gland 3324
Estrogen binding protein uterus 1358
Estrogen protein mannosylation oviduct 4330
Estrogen receptor estradiol uterus 8856
Estrogen receptor mammary neoplasm 3703
Estrogen receptor oviduct nucleus 2060
Estrogen receptor uterus nucleus 6823 8206
Estrogen sulfotransferase inhibition adrenal 7214
Estrogen vitellogenin messenger RNA 7913 8428
Estrone membrane bound UDP glucuronyltransferase 7534
Estrone sulfotransferase inhibition adrenal 7214
Ethanol oxidizing system microsome 7124
Ethanolamine ammonialyase mechanism 5004
Ethanolaminephosphotransferase diacylglycerol 3050
Ethionine ribosome protein phosphorylation 6217
Euglena tryptophan biosynthesis enzyme 235
Evolution complement C3a C5a 1826
Evolution flavodoxin 1453
Evolution IgG hinge 883
Evolution ribosome protein 9065
Exchange reaction phosphorylation energy transduction 2478
Exchange reaction phosphorylation mitochondria 2486
Excitability producing protein Enterobacter 8884
Exercise ammonia formation muscle 5054
Exercise cytochrome c metab muscle 416
Exogalactofuranosidase Penicillium 3219
Exonuclease III Escherichia specificity 4786
Exonuclease V mechanism kinetics 499
Exoribonuclease brain action pattern 6416
Exoribonuclease Escherichia 8950
Exoribonuclease II Escherichia 8945
Eye disk membrane rhodopsin structure 8092
Eye membrane rhodopsin structure light 8101
Eye retina retinol transport 5216
Eye retinal binding protein 3267
Eythrocyte membrane phosphofructokinase allosteric property 7418
Factor XIIIa mechanism 3752
FAD cysteinyl cytochrome c552 4767
Fasting calcium binding protein 4145
Fats
See also Lipids, Phospholipids, and Triglycerides
Fatty acid albumin binding conformation 4043
Fatty acid binding protein liver 5483
Fatty acid branched metab Ascaris 4215
Fatty acid carbon dioxide Tetrahymena 3402
Fatty acid chain elongation microsome 6736
Fatty acid choloyl CoA synthetase 1167
Fatty acid cyclooxygenase induction benzopyrene 6591
Fatty acid formation liver glucagon 4421
Fatty acid formation liver lipoprotein 6581
Fatty acid guanylate cyclase 1279
Fatty acid hydroxylation brain 5206
Fatty acid lipid Escherichia membrane 8797
Fatty acid liver methylglutaryl reductase 2822
Fatty acid membrane transport Ehrlich 6624
Fatty acid omega oxidn acetyl group 4379
Fatty acid oxidn flavoprotein 8440
Fatty acid synthetase liver 4242
Fatty acid synthetase liver embryo 7015
Fatty acid synthetase mechanism Mycobacterium 5745
Fatty acid synthetase mechanism polysaccharide 5740
Fatty acid synthetase Mycobacterium 5735
Fatty acid unsatd Escherichia oleate 5488
Fd virus DNA replication 2534
Ferredoxin elec field effect ESR 5643
Ferredoxin nitrite reductase spinach 896
Ferredoxin NMR Clostridium 2245
Ferredoxin Pseudomonas 7802
Ferredoxin pyruvate oxidoreductase Clostridium 2657
Ferredoxin Rhodospirillum chromatophore 7453
Ferricyanide adrenodoxin reductase cytochrome 2908
Ferriheme Hb Bohr effect 3128
Ferritin formation liver 2046
Ferritin iron binding liver 2054
Fertilization egg concanavalin A 1286
Fetoprotein messenger RNA 8469
Fibrin fibrinogen polymn plasmin 6184
Fibrinogen conformation chain antigen 8917
Fibrinogen fibrin polymn plasmin 6184
Fibroblast adipose lipid enzyme 2158
Fibroblast amino acid transport 1990
Fibroblast collagen sarcoma virus 8863
Fibroblast collagen tunicamycin 955
Fibroblast disaccharide lipid formation virus 2918
Fibroblast DNA formation cell cycle 4762
Fibroblast DNA structure mitosis 141
Fibroblast glucocorticoid receptor reactivation 7579
Fibroblast glucoside hydrolase 825
Fibroblast glycosaminoglycan virus transformation 4777
Fibroblast interferon purifn 5934
Fibroblast lipid sarcoma virus 6190
Fibroblast lipoprotein interaction receptor 3980
Fibroblast microsome calcium uptake 6304
Fibroblast multiplication stimulating activity 3898
Fibroblast mutant glycoprotein formation 1639
Fibroblast oligosaccharide formation UDP glucose 1780
Fibroblast prostaglandin formation protein 1408
Fibroblast purine nucleoside phosphorylase deficiency 4428
Fibroblast receptor lipoprotein arginine 7279
Fibroblast Sindbis virus glycoprotein 2621
Fibroblast sterol formation cholestene 8975
Fibroblast transformed permeability ATP 4584
Fibroblast transformed protein degrdn 5310
Fibroblast virus transformation protein formation 7640
Fibroblast virus transformed microtubule assembly 794
Flavin reductase Beneckea 7495
Flavodoxin peptide sequence Desulfovibrio 1453
Flavoprotein iron sulfur mitochondria 8440
Fluorescence depolarization dimyristoyllecithin microvicosity 2163
Fluorescence depolarization phenylhexatriene membrane 7500
Fluorescent substrate peptidoglycan formation 2296
Fluoride interaction adenylate cyclase 5677
Fluorine NMR transfer RNA 4418
Fluoroacetyl peptide inhibition elastase leukocyte 5931
Fluoropropionyl CoA carboxylase mechanism 8338
Fluorouracil metab hepatoma 1051
FMN reductase Beneckea 7495
Folate acid dissocn 3724
Folate binding protein choroid plexus 3364
Folate binding protein Lactobacillus 3760
Folate binding protein liver 933
Formylmethionine transfer RNA aminoacylation 814
Formylmethionyl RNA protein formation mitochondria 2519
Formylmethionyl transfer RNA ribosome 3941
Formyltetrahydrofolate synthetase complex liver 1117
Freezing amino acid oxidase pH 8035
Frog muscle contraction myosin phosphorylation 4752
Fructose diphosphatase crystal structure 5556
Fructose diphosphatase turkey liver 7031
Fructose metab pancreas insulin release 8519
Fructose yeast hexokinase 4443
FSH receptor testis 4166
Fucose liver membrane regeneration 5895
Fucosidase alpha liver lysosome 739
Fucosylgalactose acetylgalactosaminyltransferase 2346
Fucosylgalactose acetylgalactosaminyltransferase salivary 2338
Galactofuranosidase exo Penicillium 3219
Galactokinase Saccharomyces 1162
Galactomannan structure Aspergillus wall 2584
Galactosaminidase endoacetyl mucin Diplococcus 8609
Galactose agglutinin sialo group liver 8624

Galactose metab Saccharomyces glucose 6399
Galactose operon regulation region sequence 3538
Galactose phosphate uridylyltransferase mechanism 5363
Galactosidase beta biosynthesis factor 6889
Galactosidase beta heterogeneity 4613
Galactosidase degrdn intermediate Escherichia 8350
Galactosidase Diplococcus 8615
Galactoside sialyltransferase colostrum 2363
Galactoside transport Escherichia 7657
Galactoside transport Escherichia membrane 7662
Galactosyl diacylglycerol metab myelin brain 5864
Galactosyltransferase chondroitin xyloside 6316
Galactosyltransferase serum cancer 1807
Galactosyltransferase UDP galactose acetylglucosamine mammary 7294
Ganglia nerve growth factor 5859
Ganglioside GT1a brain 6247
Ganglioside tetanus toxin binding 194
Gaucher spleen glucocerebrosidase activator 563
GDP elongation factor manganese 2004
GDP GTP tubulin 2101
GDP mannose metab microsome pancreas 224
GDP mannose polyprenyl phosphate mannosyltransferases retina correction of page 5622, 8773
GDP mannose reaction phosphorylated retinoid 2575
Gel electrophoresis globin messenger RNA 2182
Gelation actin Acanthamoeba protein 399
Gene cloning globin 2209
Gene cytochrome c horse donkey 830
Gene expression adrenergic prostaglandin receptor 1293
Gene expression asymmetry probe 5606
Gene expression chromatin transcription 2396
Gene ketodeoxyoctonate phosphate synthetase Salmonella 4895
Gene ovalbumin anticoding purifn 5789
Gene ovalbumin endonuclease map 4722
Gene ovalbumin insertion plasmid 1840
Gene phosphorylation mitochondria Schizosaccharomyces 5716
Gene promoter deoxynucleotide kinase phage 2304
Gene protamine trout 8062
Gene protein elongation factor Escherichia 2154
Gene recA protein X Escherichia 6251
Gene ribosomal protein Escherichia Charon phage 7344
Gene ribosomal protein Escherichia lambda phage 7323
Gene ribosomal protein mapping Escherichia 7365
Gene ribosome protein Escherichia 7337
Gene ribosome protein promoter Escherichia 7355
Gene ribosome RNA map Saccharomyces 8118
Gene ribosome RNA map sequence 8126
Gene ribosome RNA yeast organization 6562
Genetic human erythrocyte glucose phosphate dehydrogenase correction of page 2993 2796
Genetic regulation UDP glucuronosyltransferase 2827
Genetics Ig Til heavy chain sequence 7192
Genetics leukemia cell cysteine pathway 7184
Genetics liver enzyme induction 157
Genetics liver histidase formation 6695
Geodia sialyltransferase aggregation factor 3836
Glioma myelin glycosphingolipid formation 2777
Globin complementary DNA probe 5606
Globin gene cloning 2209
Globin messenger RNA affinity chromatog 457
Globin messenger RNA DNA 1908
Globin messenger RNA prepn 2182
Globin messenger RNA sequence 3446 5019 5032 5040
Globin messenger RNA structure 1758 1764
Globin messenger RNA translation 2742
Globin pepsinogen activation 4438
Globin synthesis initiation factor 2684
Globulin assocn dissocn electrolyte 240
Globulin corticosteroid binding 1895
Globulin thyroxine binding conformation 8719
Globulin thyroxine binding plasma 8713
Glucagon adenosine metab liver 8066
Glucagon adenyl cyclase guanine nucleotide 3829
Glucagon gluconeogenesis lactate liver 1831
Glucagon histidase liver 3234
Glucagon liver enzyme 528
Glucagon liver malonyl CoA 4421
Glucagon liver membrane GTP 2790
Glucagon liver membrane hyperglucagonemia 7434
Glucagon receptor adenylate cyclase liver 5947
Glucagon receptor adenylate cyclase regulation 5942
Glucagon regulation adenylate cyclase 5951
Glucagon stomach pancreas property 1847
Glucagon tyrosine aminotransferase dexamethasone 6783
Glucagon yolk sac pinocytosis 7151
Glucocerebrosidase activator Gaucher spleen 563
Glucocorticoid ATP mitochondria calcium 1217
Glucocorticoid hydroxymethylglutaryl reductase induction 3272
Glucocorticoid receptor inactivation enzyme enzyme 7568
Glucocorticoid receptor lymphocyte phytohemagglutinin 2972
Glucocorticoid receptor thymocyte reactivation 7579
Glucocorticoid tryptophan oxygenase liver development 4354
Glucocorticoid tyrosine aminotransferase induction 6783
Gluconeogenesis Bacillus alk phosphatase 6806
Gluconeogenesis lactate liver regulation 1831
Glucopeptide formation acetylglucosaminyltransferase 3926
Glucosamine immunoglobulin secretion plasma cell 4402
Glucosamine interferon abnormal formation 4425
Glucose absorption phosphorylation liver inanition 8404
Glucose bisphosphate synthase regulation 4262
Glucose galactose metab Saccharomyces 6399
Glucose metab pancreas insulin release 8519
Glucose oxidase nitroethane oxidn 4361
Glucose phosphatase brain deoxyglucose transport 7035
Glucose phosphate cyclization enzyme mechanism 7221
Glucose phosphate dehydrogenase arginine 3745
Glucose phosphate dehydrogenase formation liver 7796
Glucose phosphate dehydrogenase metab uterus 3709
Glucose phosphate isomerase dehydrogenase immobilized 2611
Glucose phosphate transport microsome 8512
Glucose release liver adrenergic calcium 2662
Glucose transport adipocyte 181
Glucose transport adipocyte polyamine 560
Glucose transport adipose membrane 8341
Glucose transport erythrocyte cytochalasin 5456
Glucose transport insulin hagfish 602
Glucose transport protein erythrocyte 7384
Glucose transport system adipose 6554
Glucose transport thymocyte 3533
Glucose transport thymocyte respiration 4876
Glucose yeast hexokinase 4443
Glucoside hydrolase fibroblast 825
Glucosyltransferase dolichyl glucosyl phosphate 2271
Glucuronate thyroglobulin carbohydrate 5424
Glucuronidation bilirubin liver 2710
Glucuronosyl diacylglycerol formation Pseudomonas 4391
Glucuronosylacetylglucosaminyl pyrophosphoryldolichol formation lung 2918
Glucuronosyltransferase hydroxylase hydrocarbon genetics 2827
Glucuronosyltransferase Pseudomonas 4391
Glucuronosyltransferase UDP liver microsome 1336
Glucuronyltransferase UDP membrane bound estrone 7534
Glutamate aspartate transport Escherichia 9055
Glutamate dehydrogenase aminotransferase aspartate 1250
Glutamate dehydrogenase Neurospora peptide sequence 8160
Glutamate dehydrogenase peptide sequence Neurospora 8142 8150 8174 8182 8196
Glutamate methyl ester Echerichia membrane protein 3214
Glutamate synthase amination ketoglutarate 3501
Glutaminase activation dimerization 1927
Glutamine GMP synthetase site 5431
Glutamine phosphoribosylpyrophosphate amidotransferase Bacillus 7424
Glutamine phosphoribosylpyrophosphate amidotransferase hysteresis 7959
Glutamine synthetase kinetics mechanism 6046
Glutamine synthetase messenger RNA 3028
Glutamine synthetase Neurospora 8724
Glutamyl methyltransferase Salmonella protein 2793
Glutamyl transpeptidase active site 6792
Glutamyl transpeptidase kidney 6042
Glutamylcysteine synthetase aminooxochloropentanoate 2606
Glutamylcysteine synthetase liver 2599
Glutamyllysine stratum corneum skin 1837
Glutarate semialdehyde dehydrogenase induction Pseudomonas 7987
Glutarate semialdehyde dehydrogenase Pseudomonas 7979
Glutathione reductase purifn 6367
Glutathione requirement prostaglandin E isomerase 890
Glyceraldehyde phosphate dehydrogenase substrate analog 5925
Glycerol phosphate dehydrogenase multiple form 5575
Glycerophosphate acyltransferase fibroblast adipose 2158
Glycerophosphate diacyl Mycobacterium 6682
Glycerophospholipid metab myelin microsome brain 4025
Glycidaldehyde DNA reaction 5370
Glycine phosphoglycerate dehydrogenase 1527
Glycine reductase selenoprotein Clostridium 5337
Glycine transfer RNA collagen formation 2447
Glycogen phosphorylase liver hormone 528
Glycogen synthase adipocyte insulin 444
Glycogen synthase inhibition palmityl CoA 7812
Glycogen synthase kinase cyclic AMP 2384
Glycogen synthase kinase muscle 1231
Glycogen synthase kinase protein 7517
Glycogen synthase manganese sulfate 3240
Glycogenolysis liver adenosine hormone 8066
Glycolipid cell agglutinin resistance 1107
Glycolipid formation plant tunicamycin 7431
Glycolipid formation Pseudomonas 4391
Glycolipid pancrease glucosyltransferase 2271
Glycolysis alanine formation heart anoxia 5010
Glycolysis muscle purine nucleotide cycle 5054
Glycolysis sperm motility energy 8088
Glycolysis stomach mucosa 8572
Glycolysis Tetrahymena model 1589
Glycolytic enzyme stability erythrocyte 1829
Glycopeptide formation mannosyltransferase Penicillium 2187
Glycopeptide HLA antigen 7555
Glycopeptide lectin lima bean 6995
Glycophospholipid virus membrane fibroblast 2621
Glycoprotein acetylglucosamine binding liver 6536
Glycoprotein brain synapse 786
Glycoprotein cell agglutinin resistance 1107
Glycoprotein cell membrane adipose 6236
Glycoprotein Diplococcus endoacetylgalactosaminidase 8609
Glycoprotein erythrocyte membrane topog 712
Glycoprotein formation fibroblast mutant 1639
Glycoprotein formation UDP glucose 1780
Glycoprotein glucose transport adipose 6554
Glycoprotein glycosylation Ig chain myeloma 2372

Glycoprotein lung alveolar proteinosis 1172
Glycoprotein membrane degrdn. regeneration liver 5895
Glycoprotein opsin blood serum 7156
Glycoprotein platelet disulfide group 2121
Glycoprotein sialate labeling membrane 5888
Glycoprotein Sindbis virus fibroblast 2621
Glycoprotein virus tunicamycin 9018
Glycosaminoglycan cornea heart skin 6861
Glycosaminoglycan fibroblast virus transformation 4777
Glycosidase Diplococcus 8615
Glycosidase uracil DNA Escherichia 3286
Glycosphingolipid formation myelin glioma 2777
Glycosylation asparaginase 7678
Glycosylation glycoprotein Ig chain myeloma 2372
Glycosylation Hb 2998
Glycosylation Ig kappa chain formation 4474
Glycosylation inhibitor interferon formation abnormal 4425
Glycosylation protein enzyme endoplasmic reticulum 7901
Glycosylation protein oviduct development 4330
Glycosyltransferase polyprenol pyrophosphate 3057
Glycyl copper alaninato mol structure 8840
GMP cyclase arachidonate 1279
GMP cyclic phosphodiesterase lung 4078
GMP cyclic phosphodiesterase specificty 5211
GMP cyclic protein kinase 4269 4347 6443
GMP synthetase glutamine site 5431
Golgi app acetylglucosamine galactosyltransferase mammary 7294
Golgi membrane mannosidase liver 3227
Gonadotropin chorioic peptide sequence 5386
Gonadotropin chorionic peptide sequence 5393
Gonadotropin receptor corpus luteum 8869
Gradient centrifugation chromatin sepn 2630
Growth hormone disulfide dimer 3697
Growth hormone liver protein formation 3611
Growth hormone pituitary culture dexamethasone 3870
Growth hormone pituitary triiodothyronine receptor 6052
GTP activation adenylate cyclase model 7909
GTP adenyl cyclase liver glucagon 3829
GTP adenylate cyclase 2784
GTP com oligoribonucleotide contamination 8498
GTP cyclohydrolase liver 5750
GTP elongation factor manganese 2004
GTP GDP tubulin 2101
GTP glucagon liver membrane 2790
GTP microtubule assembly tubulin 4440
GTP photoreactive deriv adenylate cyclase 7224
GTP regulation adenylate cyclase adipocyte 7964
Guanidinium trypsin inhibitor denaturation 5239
Guanine nucleotide activation adenylate cyclase 5180
Guanine nucleotide adenyl cyclase glucagon 3829
Guanine nucleotide adenylate cyclase 3766
Guanine nucleotide prostaglandin receptor 5295
Guanosyl nucleotide adenylate leukocyte 1901
Guanyl nucleotide activation adenylate cyclase 7909
Guanylate cyclase activation hydroxylamine brain 596
Guanylate cyclase activator brain 7617
Guanylate cyclase cyclic AMP formation 3136
Guanylate cyclase fatty acid 1279
Guanylate cyclase magnesium maganese 4298
Guanylate cyclase methylnitrosoguanidine liver 5804
Guanylate synthase azide activation 4384
Gulonate dehydrogenase liver 2545
Haemophilus restriction endonuclease DNA cleavage 7300
Hageman factor prekallikrein activation 6097
Hagfish insulin adipocyte 602
Harderian gland dihydroxyacetone phosphate acyltransferase 6363
Hb A F sickle Hb polymn 3414
Hb AIc structure carbohydrate 2992
Hb Bohr effect ferriheme 3128
Hb carbonyl compd oxygen sickling 8542
Hb cobalt ESR 620
Hb erythrocyte oxidn xanthine oxidase 6721
Hb glycosylation 2998
Hb interaction oxygen 4882
Hb iron cobalt hybrid EPR 8639
Hb ligand binding deuteroheme 4225
Hb ligand binding pressure 4102
Hb myoglobin photodissocn 7955
Hb nitric oxide 403
Hb oxidn hydroxylamine phosphate 6105
Hb pepsinogen activation 4438
Hb polymn sickle correction of page 3414 5924
Hb reaction oxygen conformation 7538
Hb S aggregation pH oxygenation 7468
Hb spectra pressure 4098
Hb subunit assembly calorimetry 88
Hb subunit assocn thermodn 74 82
Hb subunit carbon dioxide oxygen 2952
Hdyroxymethylglutaryl CoA reductase liver sterol 1057
Heart adrenergic receptor thyroxine 2787
Heart alanine formation anoxia 5010
Heart aspartate aminotransferase active site 5835
Heart ATPase adenylate cyclase unmasking 7905
Heart calcium transport ATPase 3315
Heart crotonase characterization 542
Heart cyclic AMP detn 1041
Heart cytochrome oxidase hemoglobin A correction of page 5498, 8774
Heart differentiation embryo RNA 6521
Heart glycosaminoglycan 6861
Heart isocitrate dehydrogenase 3671
Heart lipoprotein lipase 4202
Heart mitochondria phosphate binding ATPase 2891
Heart mitochondria sūbsarcolemmal interfibrillar 8731
Heart muscarinic receptor embryo 8692
Heart myosin ATPase ATP analog 1681
Heart myosin ATPase thyrotoxicosis 6925
Heart myosin heavy chain turnover 3422
Heart nucleoside diphosphate kinase 4232
Heart plasminogen activator 3729
Heart protein kinase 3854
Heart protein kinase isoenzyme 910
Heart receptor muscarinic cholinergic thyroid 7444
Heart sodium calcium transport veratridine 6112
Heavy chain myosin half life 3422
HeLa cell hydroxymethylglutaryl reductase glucocorticoid 3272
HeLa cell methylguanosine dinucleotide pyrophosphatase 2815
HeLa DNA formation NAD analog 4134
HeLa DNA polymerase mitochondria 3351
HeLa histone messenger RNA 166 173
HeLa mitochondria protein formation 1702
HeLa nucleosome histone site 6516
Hemagglutinin muscle chick 5444
Hemagglutinin muscle embryo 6026
Hematin analog peroxidase CD 8222
Hematoporphyrin NADPH photooxidn 8554
Heme compd spectra pressure 4098
Heme complex photodissocn 7955
Heme ligand cytochrome P450 3637
Heme metab liver cobalt 219
Heme mutant yeast 2846
Heme oxygenase liver 5900
Heme reaction carbon monoxide kinetics 7475
Heme sulfite oxidase 2017
Hemeprotein liver induction polychlorinated biphenyl 6373
Hemoglobin carbon monoxide 5498
Hemolysis superoxide hydrogen peroxide 6721
Hemoprotein EPR 3637
Hemoprotein oxygenation kinetics ESR 620
Heparin invertebrate 2254
Heparin mast cell formation structure 518
Heparin RNA polymerase DNA 5403
Heparitin sulfate invertebrate 2254
Hepatocarcinoma thyroid hormone metab 4458
Hepatoma amino acid transport derepression 2900
Hepatoma aminotransferase cyclic AMP dexamethasone 3891
Hepatoma cyclic nucleotide phosphodiesterase dexamethasone 1448
Hepatoma cytoplasm protein 3626
Hepatoma DNA formation NAD analog 4134
Hepatoma DNA methylcytosine bromodeoxyuridine 5509
Hepatoma ferritin formation 2046
Hepatoma ferritin iron binding 2054
Hepatoma fluorouracil metab 1051
Hepatoma hexose transport cytochalasin 4191
Hepatoma hydroxymethylglutaryl coenzyme A reductase 950
Hepatoma liver octadecenoate 1965
Hepatoma transport cytochalasin Persantin 4185
Hepatoma tyrosine aminotransferase 2717
Hepatoma tyrosine aminotransferase degrdn 7834
Hepatoma U1 RNA sequence 3814
Heterogenous nuclear RNA protein 7307
Heterosaccharide RNase conformation stability 8358
Hexokinase crystal structure 4494
Hexokinase inhibition chromium ATP 1844
Hexokinase mutant yeast 4443
Hexokinase yeast regulation 5345
Hexose metab pancreas insulin release 8519
Hexose transport cytochalasin hepatoma 4191
High density lipoprotein apoprotein antigenicity 6651
High density lipoproteins
See also Lipoproteins
High potential protein Chromatium 7802
Histidase formation liver genetics 6695
Histidase liver hormone 3234
Histidine concanavalin cation complex 3141
Histidine modification phospholipase A_2 2405
Histidine RNase S active site 6991
Histidine tautomerization myoglobin NMR 4968
Histidinol protein ribosomal RNA 5251
Histone activation polyadenylate diphosphoribose synthetase 7000
Histone antibody calf Drosophila 3099
Histone chromatin nucleosome acetylation 5962
Histone classification wheat 4068
Histone disulfide group chromatin cell cycle 4962
Histone H4 kinase lymphosarcoma 7109
Histone lysine methyltransferase brain 5977
Histone messenger RNA 173
Histone messenger RNA HeLa 166
Histone methylation brain 5981
Histone nucleosome binding site 6516
Histone protein kinase 613
Histone reaction protein kinase ionic strength 3007
Histoplasma ribonucleotide polymerase 4337
HLA antigen carbohydrate peptide 7555
HLA antigen detergent purifn property 4682
HLA antigen subunit disulfide structure 4694
Hodgkin disease RNase interaction transcriptase 7783
Homocysteine formation sulfhydrylase plant 3436
Homoserine dehydrogenase aspartate kinase 5332
Homoserine dehydrogenase aspartokinase active fragment 7685
Hormone thyroid heart receptor 7444
Horse donkey cytochrome c gene 830
Horseshoe crab hemocyanin Limulus correction of page 7644 406
Hyaluronate cartilage nose 420
Hydrase epoxide kinetics 3715
Hydratase enoyl CoA 542
Hydratase epoxide stereospecificity 6328
Hydrate copper glycyl alaninato structure 8840
Hydrocarbon hydroxylase aryl receptor 8981
Hydrocarbon hydroxylase glucuronosyltransferase genetics 2827
Hydrocarbon polycyclic oxide hydration 6328
Hydrocortisone aminolevulinate synthase liver 2428
Hydrogen peroxide liposome Hb erythrocyte 6721
Hydrogen peroxide polyamine adipocyte 560
Hydrogen peroxide redn hemoprotein 199
Hydrogen transport phosphorylation ATPase 2956
Hydrogenation catalyst polyprenyl phosphate sugar 5619
Hydrolase glucoside fibroblast 825
Hydroperoxide hydroxylase indole pea 6118

Hydrophilicity adenylate cyclase 8957
Hydrophobic chromatog membrane protein sepn 8957
Hydrophobicity adenylate cyclase 8957
Hydroxy steroid dehydrogenase kinetics 205
Hydroxy steroid dehydrogenase Pseudomonas 3775 3784
Hydroxybutyrate respiration lipid formation development 5222
Hydroxycholecalciferol binding protein cytoplasm blood 2515
Hydroxycholesterol cytochrome P 450 8788
Hydroxycitrate isomer interaction citrate lyase 7583
Hydroxyl radical oxidn liposome erythrocyte 6721
Hydroxylamine activation guanylate cyclase brain 596
Hydroxylamine alanine carboxypeptidase penicillin 7525
Hydroxylamine Hb oxidn phosphate 6105
Hydroxylase aryl hydrocarbon receptor 8981
Hydroxylase benzopyrene induction liver genetics 157
Hydroxylase cholesterol liver 5852
Hydroxylase glucuronosyltransferase hydrocarbon genetics 2827
Hydroxylase indole hydroperoxide pea 6118
Hydroxylase indolylalkane mechanism 6970
Hydroxylase indolylalkane Pseudomonas 2640
Hydroxylase prolyl specificity earthworm 7591
Hydroxylase tyrosine adrenal 3160
Hydroxylation fatty acid brain 5206
Hydroxymethylcytosine thymine phage T4 DNA 3019
Hydroxymethylglutaryl CoA reductase adrenal lipoprotein 1771
Hydroxymethylglutaryl CoA reductase cholestyramine 6145
Hydroxymethylglutaryl CoA reductase inhibitor 1561
Hydroxymethylglutaryl CoA reductase liver 5852
Hydroxymethylglutaryl CoA reductase liver lipoprotein 2726
Hydroxymethylglutaryl CoA reductase regulation 8924
Hydroxymethylglutaryl CoA synthase kinetics 1414
Hydroxymethylglutaryl coenzyme A reductase hepatoma 950
Hydroxymethylglutaryl reductase induction glucocorticoid 3272
Hydroxymethylglutaryl reductase liver ketocholesterol 5186
Hydroxyphenylalanine melanin formation 5729
Hydroxyphenylpyruvate dioxygenase kinetics mechanism 5094
Hydroxyphenylpyruvate dioxygenase liver 5073
Hydroxyphenylpyruvate dioxygenase multiple form 5085
Hydroxytryptamine transport platelet membrane 2170
Hydroxyvitamin D hydroxylase 8677
Hypercholesterolemia lipoprotein cholesterol ester 7288
Hypercholesterolemia sterol leukocyte 644
Hyperglycemia obesity lipase cyclic AMP 7243
Hyperthyroidism galactosyl diacylglycerol brain 5864
Hypothyroidism galactosyl diacylglycerol brain 5864
Hysteresis glutamine phosphoribosylpyrophosphate amidotransferase 7959
Ig chain glycoprotein glycosylation myeloma 2372
Ig cryopptn myeloma solute 8002
Ig HLA antigen 7555
Ig kappa chain formation glycosylation 4474
Ig Til heavy chain sequence genetics 7192
Ig variable sequencee structure site 6609
IgE cell membrane receptor 704
IgG3 hinge amino acid sequence 883
Imines
See also Schiff bases
Immobilization adenine nucleotide sol copolymer 6631
Immobilization aspartate aminotransferase collagen 7919
Immobilization rubredoxin 2390
Immobilized glucose phosphate isomerase dehydrogenase 2611
Immunoassay tubulin Chlamydomonas 383
Immunoglobulin messenger RNA translation 2592
Immunoglobulin secretion plasma cell tunicamycin 4402
Immunol serum albumin polyethylene glycol 3578
Immunosorption purifn messenger RNA 6666
In vitro synthesis DNA globin sequences correction of page 5606, 8774
Inanition cholesterol formation organ 3646
Inanition gluconeogenesis lactate liver 1831
Inanition glucose absorption phosphorylation liver 8404
Inanition lipoprotein plasma liver 5258
Indolamine dioxygenase mechanism superoxide 3548
Indole hydroxylase hydroperoxide pea 6118
Indole oxidizing enzyme Pseudomonas 2648
Indoleamine dioxygenase kinetics mechanism 4643
Indoleamine dioxygenase superoxide complex 4637
Indoleamine dioxygenase superoxide intestine 2774
Indolylalkane hydroxylase mechanism 6970
Indolylalkane hydroxylase Pseudomonas 2640
Inflammation inhibitor cyclic AMP astrocytoma 6018
Inhibitor ATPase Saccharomyces mitochondria 671
Inhibitor hydroxymethylglutaryl CoA reductase 1561
Inhibitor protease plasminogen plasmin 3945
Inhibitor protein kinase 3848
Inhibitor protein kinase testis 6322
Inhibitor trypsin conformation denaturation 5239
Inhibitor yeast proteinase B 5316
Initiation factor E4 E6 reticulocyte 5798
Initiation factor globin synthesis 2684
Initiation factor IF1 protein formation 1739
Initiation factor RNA translation methylguanosine 8489
Inosine metab nucleoside phosphorylase deficiency 4428
Inosinyl imidodiphosphate ATPase 1673
Inositol phosphate synthase mechanism 5672 7221
Inositol phosphatidyltransferase liver 5419
Inositolless death Saccharomyces phospholipid 8684
Insol peptide automatic sequencing determent 2218
Insulin adipocyte differentiation 3554
Insulin adipocyte respiration phosphorylation 2226
Insulin amino acid muscle 1476
Insulin aminolevulinate synthase liver 2428
Insulin degrdn disulfide oxidoreductase 7163
Insulin glycogen synthase adipocyte 444
Insulin hagfish adipocyte 602
Insulin liver lysosome perfusion 6948
Insulin liver lysosome protein 6955
Insulin pancreas neoplasm cyclic AMP 92
Insulin polyamine hydrogen peroxide 560
Insulin prepro structure 7971
Insulin receptor lymphocyte membrane 5828
Insulin release pancreas hexose metab 8519
Interferon carbohydrate circulation survival 8336
Interferon formation abnormal glycosylation inhibitor 4425
Interferon lymphoblastoid sepn 6585
Interferon purifn fibroblast 5934
Intestine aminopeptidase brush border 4922
Intestine aminopeptidase specificity 4929
Intestine basement membrane Ascaris carbohydrate 4002
Intestine basement membrane protein Ascaris 3995
Intestine calcium binding protein 4145 8677
Intestine indoleamine dioxygenase superoxide 2774
Intestine phytosphingosine formation 5815
Intestine sucrase metaplasia 3277
Intestine vitamin D3 binding 4501
Invertase Saccharomyces structure subunit 4409
Invertebrate mucopolysaccharide sulfate 2254
Iodination tyrosine thyroglobulin 3281
Iodotyrosine cytochrome c deriv 7743
Ionic strength protein reaction histone 3007
Ionophore calcium transport sarcoplasm 1938
Ionophore sodium binding scorpion toxin 8660
Ionophore sodium neurotoxin activation 8669
Iron binding liver ferritin 2054
Iron cobalt Hb hybrid EPR 8639
Iron phosphoenolpyruvate carboxykinase activation 1431
Iron protein nitrogenase *Clostridium* 7081
Iron protein nitrogenase Clostridium 7089 7093
Iron sulfur flavoprotein mitochondria 8440
Iron sulfur protein ESR 5643
Iron sulfur protein Paracoccus 7826
Iron sulfur protein structure 7802
Iron transferrin chelate anion 8108
Isoaccepting transfer RNA 8023
Isocitrate dehydrogenase affinity chromatog 3671
Isocitrate dehydrogenase methylisocitrate 2702
Isoenzyme aspartate aminotransferase 609
Isoenzyme carbonic anhydrase erythrocyte 555
Isoenzyme lactate dehydrogenase regulation salmon 5708
Isoenzyme nomenclature 5939
Isoenzyme protein kinase autophosphorylation 6588
Isoenzyme protein kinase heart 910
Isolectin immunochem bean 2961
Isolectin protein subunit reassocn bean 2967
Isomer octadecenoate 1965
Isomerase glucose phosphate dehydrogenase immobilized 2611
Isomerase ketosteroid oxoestrenyl acetate 6151
Isomerase prostaglandin E glutathione requirement 890
Isopropylmalate synthase CoA binding 4085
Isoproterenol adenyl cyclase adipocyte 3554
Isoproterenol cyclic AMP liver 8645
Isoproterenol potassium efflux parotid 5472
Keratan sulfate proteoglycan cartilage 1971
Ketoaminohexanoate cleavage enzyme Clostridium 20
Ketocholesterol cholesterol formation liver 5186
Ketodeoxygluconate phosphate aldolase substrate 3486
Ketodeoxyoctonate phosphate synthetase gene Salmonella 4895
Ketoglutarate amination glutamate synthase 3501
Ketoglutarate dehydrogenase regulation Acetobacter 2940
Ketone monooxygenase Pseudomonas 8561
Ketosteroid isomerase oxoestrenyl acetate 6151
Kidney adenosine deaminase erythrocyte 6409
Kidney basement membrane metab 8597
Kidney cell arachidonate benzopyrene 6591
Kidney cyclic AMP metab 6675
Kidney glutamyl transpeptidase 6042
Kidney medulla guanylate cyclase 4298
Kidney membrane parathormone binding 1071
Kidney membrane parathormone receptor 1079
Kidney mevalonate metab 548
Kidney PGE1 biosynthesis mechanism 2069
Kidney proline resorption 591
Kidney pyruvate kinase 6108
Kidney renin purifn property 2978
Kidney vitamin D metab 8677
Kidneys in vivo metabolism mevalonate correction of page 548 4015
Kinase adenylate adenosine phosphorothioate 4445
Kinase arginine substrate binding 3344
Kinase arginine tobacco hornworm 3679
Kinase asparate mechanism sequence 5304
Kinase aspartate homoserine dehydrogenase 5332
Kinase aspartate subunit Bacillus 4648 4655
Kinase creatine active site 1197
Kinase creatine brain species specificity 3112
Kinase creatine isoenzyme brain 3105
Kinase creatine methylmercapto deriv kinetics 1202
Kinase creatine photolabel reagent 4293
Kinase deoxyadenosine deoxyguanosine purifn 8235
Kinase deoxynucleoside active site Lactobacillus 8240
Kinase deoxynucleotide gene promoter phage 2304
Kinase glycogen synthase cyclic AMP 2384

Kinase glycogen synthase muscle 1231
Kinase glycogen synthase protein 7517
Kinase histone H4 lymphosarcoma 7109
Kinase myosin heavy chain Acanthamoeba 8329
Kinase nucleoside diphosphate heart 4232
Kinase phosphoglycerate interaction membrane erythrocyte 6715
Kinase phosphoprotein dephosphorylation phosphoprotein phosphatase 2855
Kinase phosphorylase protein kinase 625
Kinase phosphorylase reaction reversibility 3408
Kinase phosphorylase specificity peptide 5666
Kinase polynucleotide phosphate exchange 3176
Kinase protein adipose development 1064
Kinase protein adipose tissue development 5356
Kinase protein adrenal medulla nucleus 8365
Kinase protein brain cerebellum 7603
Kinase protein brain synaptosome 5164
Kinase protein carcinoma 6335
Kinase protein catalytic subunit muscle 2691
Kinase protein cyclic AMP 3854 7690
Kinase protein cyclic AMP egg 1712
Kinase protein cyclic GMP 4269 4347 6443
Kinase protein erythrocyte membrane 102
Kinase protein inhibitor 3848
Kinase protein inhibitor testis 6322
Kinase protein isoenzyme autophosphorylation 6588
Kinase protein isoenzyme heart 910
Kinase protein mammary neoplasm regression 6342
Kinase protein mitochondria membrane 807
Kinase protein nucleus liver 6660
Kinase protein nucleus neoplasm 6349
Kinase protein phosphorylase activation 7488
Kinase protein phosphorylase calcium 7449
Kinase protein phosphorylation brain 5155
Kinase protein reaction histone ionic strength 3007
Kinase protein regulatory subunit 6494
Kinase protein RNA polymerase 3082
Kinase protein self phosphorylation 2780
Kinase protein specificity muscle 4888
Kinase protein substrate specificity 613
Kinase protein subunit animal tissue 1441
Kinase protein subunit reassocn 7140
Kinase protein troponin phosphorylation 851
Kinase pyruvate active site 5183
Kinase pyruvate gluconeogensis lactate liver 1831
Kinase pyruvate kidney 6108
Kinase pyruvate magnesium nucleotide complex 5967
Kinase thymidylate leukemia 5686
Kinetic alanine carboxypeptidase 2934
Kinetics aspartate aminotransferase 7919
Kinetics bienzyme system 2611
Kinetics binding lymphocyte leukoagglutinin 2095
Kinetics cholinergic receptor agonist interaction 7648
Kinetics enzyme inhibition equation 6438
Kinetics enzyme two substrate 4546
Kinetics exonuclease V mechanism 499
Kinetics glucose oxidase 4361
Kinetics hydroxy steroid dehydrogenase 205
Kinetics lipoprotein lipase 4202
Kinetoplast DNA Leishmania 6208
Klebsiella citrate lyase prosthetic 6061
Kynuramine amine oxidase active site 8081
Kynurenine aminotransferase aminoadipate 4591
Lactate dehydrogenase conformation substrate 8775
Lactate dehydrogenase Escherichia 5820
Lactate dehydrogenase isoenzyme regulation salmon 5708
Lactate dehydrogenase structure dogfish 1799
Lactate dehydrogenase subunit interaction 6163
Lactate gluconeogenesis liver regulation 1831
Lactate oxidase mechanism Mycobacterium 6729
Lactation oligosaccharide urine 1014
Lactation oligosaccharides urine 1023
Lactation urine oligosaccharide 1034
Lactobacillus deoxyadenosine deoxyguanosine kinase 8235
Lactobacillus deoxynucleoside kinase active site 8240
Lactobacillus folate binding protein 3760
Lactobacillus transport vitamin B6 835
Lactogen diphtheria toxin conjugate 1515
Lactohexaose lactoneohexaose deriv milk 5408
Lactoneohexaose lactohexaose deriv milk 5408
Lactose proton transport Escherichia 7657
Lactose repressor conformation inducer 3572
Lactose repressor inducer DNA sites 3565
Lactose repressor spectra nitrophenol 3153
Lambda phage Escherichia ribosomal protein gene 7323
Lead ATPase nitrophenylphosphatase 5201
Lecithin dextran sulfate interaction 1243
Lecithin diphenylheatriene fluorescence depolarization 2163
Lecithin interaction lipoprotein apoprotein 2194
Lecithin paraffin microviscosity 7500
Lecithin sphingomyelin phase diagram 4449
Lectin activation ATPase 5449
Lectin affinity chromatog 57
Lectin Bandeiraea 4739
Lectin lima bean glycopeptide 6995
Lectin muscle embryo 6026
Leishmania DNA kinetoplast 6208
Lesch Nyhan lymphoblast purine 6002
Leucine carbon dioxide Tetrahymena 3402
Leuconostoc glucose phosphate dehydrogenase 3745
Leucyl tRNA synthetase transport 7427
Leukemia acid phosphatase spleen 3371
Leukemia cell cysteine pathway genetics 7184
Leukemia protein formation inhibitor 2106
Leukemia thymidylate kinase 5686
Leukemia thymidylate synthetase 7697
Leukemia virus reverse transcriptase 11
Leukoagglutinin lymphocyte binding kinetics 2095
Leukocyte adenylate cyclase 1901
Leukocyte coenzyme reductase cholesterolemia 644
Leukocyte elastase inhibition fluoroacetyl peptide 5931
LH receptor corpus luteum 8869
LH receptor testis 9002
LH subunit receptor testis 522
LH subunit sepn 5274
LH subunit sheep dissocn reassocn 5280
Ligand binding albumin 5067
Ligand Hb binding deuteroheme 4225
Ligand Hb binding pressure 4102
Ligand heme cytochrome P450 3637
Ligand pyruvate oxidase detergent 5990
Ligase CoA cholate fatty acid 1167
Ligase DNA RNA phage T4 3987
Ligase RNA bacteriophage T4 1732
Light rhodopsin structure 8101
Lima bean lectin glycopeptide 6995
Limpet acetylgalactosaminidase 5194
Limulus clotting enzyme zymogen 2178
Limulus coagulogen purifn clotting 4773
Link protein mucopolysaccharide property 6470
Lipase adipose tissue phosphoprotein phosphatase 1484
Lipase colipase membrane model 4319
Lipase lipoprotein heart kinetics 4202
Lipase obesity hyperglycemia cyclic AMP 7243
Lipase phospholipase A2 kinetics mechanism 4313
Lipid A gene Salmonella 4895
Lipid A precursor Salmonella 4904
Lipid acetylglucosamine metab 3473
Lipid activation pyruvate oxidase 7883
Lipid CHO cell parinarate incorporation 7916
Lipid disaccharide formation lung 2918
Lipid enzyme adipose fibroblast 2158
Lipid erythrocyte membrane protein site 6909
Lipid fatty acid Escherichia membrane 8797
Lipid fibroblast sarcoma virus 6190
Lipid formation hydroxybutyrate respiration development 5222
Lipid formation liver glucagon 4421
Lipid mannosyl oligosaccharide animal cell 3561
Lipid metab protein hepatoma 3626
Lipid oligosaccharide complex formation 224
Lipid oligosaccharide formation cotton 2444
Lipid phase transition Escherichia calorimetry 4749
Lipid phosphorylation erythrocyte membrane 508
Lipid protein interaction membrane 3194
Lipid protein yolk Xenopus 7992
Lipid saccharide ovalbumin formation 1007
Lipid structure interaction lipoprotein 744
Lipids
See also Fats, Phospholipids, and Triglycerides
Lipoamide dehydrogenase mechanism 3199
Lipogenesis adipocyte insulin hagfish 602
Lipogenesis liver lipoprotein 6581
Lipolysis adipose noradrenaline kinetics 8833
Lipopolysaccharide Escherichia membrane fluidity 2077
Lipoprotein adrenal cholesterol ester metab 1771
Lipoprotein AI self assocn 8634
Lipoprotein apo immunoreactivity 6655
Lipoprotein apoAII assocn rhesus 6745
Lipoprotein apoC! self assocn 5756
Lipoprotein apoprotein dimyristoyllecithin complex 2200
Lipoprotein apoprotein interaction lecithin lysolecithin 2194
Lipoprotein arginine fibroblast receptor 7279
Lipoprotein cholesterol ester hypercholesterolemia 7288
Lipoprotein high density apoprotein antigenicity 6651
Lipoprotein hydroxymethylglutaryl CoA reductase liver 2726
Lipoprotein interaction receptor fibroblast 3980
Lipoprotein lipase heart kinetics 4202
Lipoprotein lipid structure interaction 744
Lipoprotein liver cholesterol formation 6856
Lipoprotein liver lipogenesis 6581
Lipoprotein low density formation liver 7530
Lipoprotein outer membrane Escherichia 2324
Lipoprotein plasma liver inanition 5258
Lipoprotein property plasma cholestasis 2113
Lipoprotein protein moiety interaction lysolecithin 3684
Lipoprotein protein moiety sequence 250
Lipoprotein receptor cholesterol steroid adrenal 4861
Lipoprotein recombinant structure thermodn 4701
Lipoprotein sterol formation organ 3652
Lipoprotein structure apolipoprotein AI 1208
Lipoprotein turbidimetry ultracentrifugation 1728
Lipoprotein yolk Xenopus 7992
Lipoproteins
See also Apolipoproteins and Sialoglycoproteins
Liposome cytochrome b5 exchange 4842
Liposome cytochrome oxidase respiratory control 6981
Liposome erythrocyte sodium permeability 6764
Liposome glucose transport protein 7384
Liposome membrane protein extn 6759
Liposome oxidn xanthine oxidase 6721
Liposome permeability choleragen protomer 797
Liposome phage fd protein CD 6253
Liposome phospholipid protein incorporation 3208
Liposome proton transport ATPase 6125
Liposome sodium potassium transport ATPase 5630
Lipovitellin yolk Xenopus 7992
Liver acetyl CoA carboxylase inhibition 5483
Liver acetylglucosamine binding glycoprotein 6536
Liver actin 8300
Liver adenosine glycogenolysis hormone 8066
Liver adenyl cyclase glucagon GTP 3829
Liver adenylate cyclase glucagon receptor 5942 5947
Liver adenylate cyclase regulation 5951
Liver agglutinin galactose sialo group 8624
Liver alc dehydrogenase kinetics human 1464
Liver aldehyde dehydrogenase induction 6169
Liver aldehyde reductase 2545
Liver aldehyde reductase NADP 3821
Liver amino acid transport 148
Liver aminolevulinate synthase hormone 2428

Liver aminotransferase metab pyridoxine 4958
Liver benzopyrene metab DNA 6424
Liver bilirubin glucuronidation 2710
Liver calcium transport mitochondria 4539
Liver carboxykinase cyclic AMP 655
Liver cholesterol formation ketocholesterol 5186
Liver cholesterol formation lipoprotein 6856
Liver choline phosphate cytidylyltransferase 7673
Liver cyclic AMP binding protein 677
Liver cyclic AMP catecholamine calcium 8645
Liver demethylubiquinone methyltransferase 4017
Liver dibutyryl cyclic AMP metabolite 4287
Liver dihydroneopterin triphosphate synthetase 5750
Liver disorder ornithine transcarbamylase 6464
Liver DNA formation NAD analog 4134
Liver DNA polymerase mitochondria 3351
Liver enzyme cholesterol formation 5852
Liver enzyme glucagon catecholamine 528
Liver enzyme induction genetics 157
Liver fatty acid methylglutaryl reductase 2822
Liver fatty acid synthetase 4242
Liver fatty acid synthetase embryo 7015
Liver ferritin formation 2046
Liver folate binding protein 933
Liver fructose diphosphatase turkey 7031
Liver glucose absorption phosphorylation inanition 8404
Liver glucose phosphatase microsome 8512
Liver glucose phosphate dehydrogenase formation 7796
Liver glutamylcysteine synthetase 2599
Liver guanylate cyclase methylnitrosoguanidine 5804
Liver hdyroxymethylglutaryl CoA reductase sterol 1057
Liver heme metab cobalt 219
Liver heme oxygenase 5900
Liver hemeprotein induction polychlorinated biphenyl 6373
Liver hepatoma octadecenoate 1965
Liver histidase formation genetics 6695
Liver histidase hormone 3234
Liver hydroxymethylglutaryl CoA reductase lipoprotein 2726
Liver hydroxyphenylpyruvate dioxygenase 5073
Liver inositol phosphatidyltransferase 5419
Liver iron binding ferritin 2054
Liver lactate gluconeogenesis regulation 1831
Liver lipogenesis lipoprotein 6581
Liver lipoprotein plasma inanition 5258
Liver low density lipoprotein formation 7530
Liver lysosome alpha fucosidase 739
Liver lysosome perfusion insulin 6948
Liver lysosome protease pepstatin 7511
Liver lysosome protein metab 6955
Liver malonyl CoA glucagon 4421
Liver mannose transfer phosphorylated retinoid 2575
Liver mannosidase Golgi membrane 3227
Liver mannosylmannose formation enzyme microsome 7235
Liver membrane glucagon GTP 2790
Liver membrane glucagon hyperglucagonemia 7434
Liver membrane glycoprotein degrdn. regeneration 5895
Liver microsome UDP glucuronosyltransferase 1336
Liver multienzyme complex 1117
Liver phenylalanine hydroxylase phosphatase 7711
Liver phospholipid exchange protein 1613
Liver phosphorylase adrenergic calcium 2662
Liver polyadenylate diphosphoribose synthetase nucleus 7000
Liver prealbumin 5107
Liver preproalbumin peptide sequence 6846
Liver prostaglandin binding protein 3689
Liver protein formation elongation factor 1471
Liver protein formation pituitary 3611
Liver protein kinase nucleus 6660
Liver protein kinase pig studies correction of page 613 5175
Liver protein ribosome 3961
Liver ribosome protein 9071
Liver RNA formation aflatoxin B1 3245
Liver sterol formation 4667
Liver sterol formation cholestene 8975
Liver thionein I sequence 8217
Liver thioredoxin reductase 4600
Liver transfer RNA adenine methyltransferase 4790
Liver triiodothyronine receptor nucleus 6799
Liver tryptophan oxygenase glucocorticoid development 4354
Liver UDP galactose epimerase 2082
Liver vitellogenin RNA estrogen 8428
Low density lipoproteins
See also Lipoproteins
Luciferase subunit biosynthesis Beneckea 803
Lung colony stimulating factor purifn 1998
Lung cyclic GMP phosphodiesterase 4078
Lung glucuronosylacetylglucosaminyl pyrophosphoryldolichol formation 2918
Lung glycoprotein alveolar proteinosis 1172
Lung protein kinase 6443
Lung superoxide dismutase neonate oxygen 3509
Lyase citrate interaction hydroxycitrate isomer 7583
Lyase citrate prosthetic group 6061
Lyase pyruvate synthase Clostridium 2657
Lymphoblast Lesch Nyhan purine 6002
Lymphoblastoid interferon sepn 6585
Lymphoblastoma HLA antigen sepn 4682
Lymphocyte amino acid transport 7101
Lymphocyte antigen subunit assocn 6201
Lymphocyte energy metab adenosine 5324
Lymphocyte glucocorticoid receptor phytohemagglutinin 2972
Lymphocyte insulin receptor membrane 5828
Lymphocyte leukoagglutinin binding kinetics 2095
Lymphoid cell membrane nucleus 2134
Lymphoma adenylate cyclase adrenergic receptor 5761 5776
Lymphosarcoma histone H4 kinase 7109
Lysine metab enzyme 20
Lysine metab enzyme induction Pseudomonas 7987
Lysine methyltransferase histone brain 5977
Lysine methyltransferase Neurospora 5651
Lysine RNase mechanism 663
Lysine UDP glucose dehydrogenase mechanism 1320
Lysolecithin activation cyclic nucleotide phosphodiesterase 4872
Lysolecithin dextran sulfate interaction 1243
Lysolecithin interaction apolipoprotein 3684
Lysolecithin interaction lipoprotein apoprotein 2194
Lysosome liver alpha fucosidase 739
Lysosome liver perfusion insulin 6948
Lysosome liver protein metab 6955
Lysosome protease liver pepstatin 7511
Lysozyme antibody combining site peptide 8784
Lysozyme aqueous vol expansibility correction of page 4001 1127
Lysozyme carbon 13 NMR 1786 1795
Lysozyme conformation nitrobenzoxadiazolyl 2507
Lysozyme messenger RNA purifn 6666
Lysozyme precursor peptide sequence 6386
Lysyl oxidase skin aneurysm 939
Macroglobulin cystic fibrosis 7923
Macroglobulin stability subunit structure 1129
Maganese guanylate cyclase magnesium 4298
Magnesium adenylate cyclase activation 5957
Magnesium albumin formation cellfree 1272
Magnesium guanylate cyclase maganese 4298
Magnesium methylene ATP sarcoplasmic reticulum 3262
Magnesium phosphorylase kinase activation 625
Magnesium protoporphyrin chlorophyll formation 4022
Magnesium pyruvate kinase nucleotide complex 5967
Malate dehydrogenase dissocn sulfhydryl 6038
Malate dehydrogenase subunit interaction 755
Malic enzyme fibroblast adipose 2158
Malonyl CoA liver glucagon 4421
Mammary neoplasm estrogen receptor 3703
Mammary neoplasm regression protein kinase 6342 6349
Mammary UDP galactose acetylglucosamine galactosyltransferase 7294
Mammary UDP galactose epimerase 2082
Manduca arginine kinase inhibition canavanine 3679
Manganese adenylate cyclase activation 5957
Manganese cytochrome c property 6156
Manganese elongation factor nucleotide 2004
Manganese pyruvate kinase site 5183
Manganese reaction coagulation factor X 4758
Manganese succinyl CoA synthetase 1957
Manganese sulfate glycogen synthase 3240
Mannitol phosphotransferase phosphoenol pyruvate Spirochaeta 8890
Mannose dolichyl phosphate retina hydrogenation 5619
Mannose metab pancreas insulin release 8519
Mannose transfer phosphorylated retinoid liver 2575
Mannosidase beta Aspergillus 2026
Mannosidase Golgi membrane liver 3227
Mannosyl oligosaccharide formation fibroblast 1780
Mannosyl oligosaccharide lipid animal cell 3561
Mannosylation protein oviduct estrogen 4330
Mannosylation protein virus fibroblast 2621
Mannosylmannose formation enzyme liver microsome 7235
Mannosyltransferase liver microsome 7235
Mannosyltransferase microsome pancreas 224
Mannosyltransferase oligosaccharide formation aorta 2498
Mannosyltransferase Penicillium glycopeptide formation 2187
Mannosyltransferase polyprenol pyrophosphate 3057
Mannosyltransferase polyprenyl phosphate retina specificity 5622
Mapping ribosomal protein gene Escherichia 7365
Mast cell arylsulfatase 7074
Mast cell heparin formation structure 518
Mast cell neurotensin receptor 7174 7180
Mechanism alanine carboxypeptidase 2934
Meiosis egg Xenopus progesterone 1712
Melanin formation hydroxyphenylalanine 5729
Membrane acetylglucosamine lipid metab 3473
Membrane adipocyte photoaffinity labeling 181
Membrane adipose cell 6229
Membrane ATPase inactivation ozone erythrocyte 8537
Membrane ATPase Neurospora 3357
Membrane basement Ascaris intestine carbohydrate 4002
Membrane basement protein intestine Ascaris 3995
Membrane cell adenosine phosphoroglycerol formation 1719
Membrane cell ATPase 2450
Membrane cell potential cyclic AMP *Neurospora* 7146
Membrane cell receptor IgE 704
Membrane compn sterol formation 409
Membrane depolarization Escherichia colicin E1 5491
Membrane energy proton oxygen Escherichia 5875
Membrane erythrocyte assocn spectrin 2753
Membrane erythrocyte cytochalasin binding 5464
Membrane erythrocyte interaction phosphoglycerate kinase 6715
Membrane erythrocyte monosaccharide transport 3131
Membrane erythrocyte polypeptide calcium 6617
Membrane erythrocyte protein crosslinking 8524
Membrane erythrocyte protein extn 6759
Membrane erythrocyte protein kinase 102
Membrane erythrocyte protein lipid site 6909
Membrane erythrocyte protein phosphorylation 508
Membrane erythrocyte protein variant 6573
Membrane erythrocyte topog protein 712
Membrane Escherichia galactoside transport 7662
Membrane Escherichia lipid fatty acid 8797
Membrane eye disk rhodopsin structure 8092

Membrane eye rhodopsin structure light 8101
Membrane eythrocyte phosphofructokinase allosteric property 7418
Membrane fatty acid Ehrlich transport 6624
Membrane fluidity Escherichia lipopolysaccharide 2077
Membrane folate binding protein 3760
Membrane glucose transport adipose 8341
Membrane glycophospholipid virus fibroblast 2621
Membrane glycoprotein adipose 6236
Membrane glycoprotein degrdn. regeneration liver 5895
Membrane glycoprotein sialate labeling 5888
Membrane kidney parathormone binding 1071
Membrane kidney parathormone receptor 1079
Membrane lipase phospholipase A2 4313
Membrane lipid protein interaction 3194
Membrane liver glucagon hyperglucagonemia 7434
Membrane lymphocyte insulin receptor 5828
Membrane mannosidase Golgi liver 3227
Membrane metab kidney 8597
Membrane microsome structure calorimetry 2929
Membrane mitochondria protein kinase 807
Membrane mitochondria succinate dehydrogenase 1582
Membrane model lipase colipase 4319
Membrane mutant Salmonella sugar transport 7862
Membrane nucleus lymphoid cell 2134
Membrane phenylhexatriene fluorescence depolarization 7500
Membrane phospholipid Escherichia antibiotic 5911
Membrane phospholipid Escherichia macromol 4487
Membrane platelet hydroxytryptamine transport 2170
Membrane prostaglandin binding protein 3689
Membrane protein bioluminescence Beneckea 5150
Membrane protein glutamate methyl ester Echerichia 3214
Membrane protein sepn hydrophobic chromatog 8957
Membrane receptor detection 1566
Membrane Salmonella phospholipid translocation 7405
Membrane synapse glycoprotein 786
Membrane synaptosome protein 3862
Membrane thyroid characterization 3074
Membrane thyroid tetanus toxin interaction 4049
Menadione oxidoreductase induction liver genetics 157
Mercapto ATPase sarcoplasmic reticulum 5262
Mercapto porphobilinogen synthase active site 8964
Meromyosin AMP deaminase 1869
Meromyosin binding ADP 8085
Messenger ribonucleoprotein protein assocn 3525
Messenger RNA amylase pancreas 5522
Messenger RNA blastokinin uterus 5412
Messenger RNA conalbumin oviduct estrogen 2060
Messenger RNA cyclic AMP 655
Messenger RNA fetoprotein 8469
Messenger RNA globin affinity chromatog 457
Messenger RNA globin cloning DNA 2209
Messenger RNA globin DNA 1908
Messenger RNA globin sequence 3446 5019 5032 5040
Messenger RNA globin structure 1758 1764
Messenger RNA globin translation 2684 2742
Messenger RNA glutamine synthetase 3028
Messenger RNA histone 173
Messenger RNA histone HeLa 166
Messenger RNA immunoglobulin translation 2592
Messenger RNA phosphoenolpyruvate carboxykinase translation 8398
Messenger RNA prepn globin 2182
Messenger RNA protamine trout 1386
Messenger RNA protein formation factor 392
Messenger RNA purifn immunosorption 6666
Messenger RNA reovirus ribosome 7842
Messenger RNA reovirus ribosome site 6895
Messenger RNA translation 8320
Messenger RNA translation albumin 1272
Messenger RNA translation methylguanosine 1181
Messenger RNA translation virus 8804
Messenger RNA virus SV40 368
Messenger RNA vitellogenin estradiol 8310
Messenger RNA vitellogenin estrogen 7913 8428
Messenger RNA vitellogenin Xenopus 5244
Metab regulation Escherichia nucleotide charge 4151
Metal DNA replication 3605
Metaplasia sucrase intestine 3277
Methemerythrin formation kinetics 6069
Methemoglobin Bohr effect 3128
Methemoglobin EPR carp 1327
Methemoglobin oxyhemoglobin photolysis 1226
Methenyltetrahydrofolate cyclohydrolase complex liver 1117
Methionine formation Escherichia 3392
Methionine transfer RNA aminoacylation anticodon 6403
Methionine transmethylation adenosylmethionine synthetase yeast correction of page 4506 6962
Methionyl transfer RNA binding protein 3843
Methopterin dissocn 3724
Methotrexate acid dissocn 3724
Methyl azidobenzoimidate receptor label 1566
Methylacetoacetate reductase nematode 4215
Methylacridinium acetylcholinesterase activation 7200
Methylamine ammonia amino acid transport Saccharomyces 3599
Methylase DNA Escherichia 7265
Methylase DNA sequence recognition Escherichia 7273
Methylase reaction DNA modified pyrimidine 3185
Methylated nucleoside messenger RNA 1764
Methylation histone brain 5981
Methylcholanthrene monooxygenase development 4712
Methylcytosine DNA hepatoma bromodeoxyuridine 5509
Methylene ATP sarcoplasmic reticulum 3262
Methylenetetrahydrofolate dehydrogenase complex liver 1117
Methylglutaryl reductase fatty acid liver 2822
Methylguanosine dinucleotide pyrophosphatase HeLa cell 2815
Methylguanosine messenger RNA translation 1181
Methylguanosine RNA translation initiation factor 8489
Methylisocitrate aconitase isocitrate dehydrogenase 2702
Methylmalonate detn enzyme 504
Methylmalonyl CoA carboxylase structure 1490
Methylmannose polysaccharide Streptomyces 2470
Methylmannose polysaccharide structure Mycobacterium 2459
Methylmercapto creatine kinase kinetics 1202
Methylnitrosoguanidine guanylate cyclase liver 5804
Methylpyridinium acetylcholinesterase activation 7200
Methyltransferase demethylubiquinone liver 4017
Methyltransferase glutamyl Salmonella protein 2793
Methyltransferase histone lysine brain 5977
Methyltransferase lysine Neurospora 5651
Methyltransferase transfer RNA adenine liver 4790
Metmyoglobin redn dithionite 4038
Mevalonate metab kidney 548
Micelle phospholipase A2 conformation 6011
Micrococcus cell wall teichuronic formation 3466
Micrococcus cell wall teichuronic intermediate 3460
Micrococcus DNA unwinding protein 5398
Micrococcus endodeoxyribonuclease 6287
Micrococcus endonuclease repair UV irradn 6294
Micrococcus UV endonuclease 6280
Microglobulin alpha1 urine 8048
Microglobulin HLA antigen 4682
Microorgansim intestine phytosphingosine 5815
Microsome brain alkylglycerophosphate acyltransferase 1663
Microsome cholesterol formation cytochrome b5 2797
Microsome cytochrome P450 immunol 3255
Microsome cytochrome P450 induction 2839
Microsome dealkylation copper tyrosine complex 5061
Microsome desaturation eicosatrienoyl lecithin 68
Microsome disaccharide lipid formation 2918
Microsome enzyme induction chlorobiphenyl 6373
Microsome ethanol oxidizing system 7124
Microsome fatty acid chain elongation 6736
Microsome fibroblast calcium uptake 6304
Microsome glucose phosphate transport 8512
Microsome glycerophospholipid metab brain 4025
Microsome liver UDP glucuronosyltransferase 1336
Microsome mannosylmannose formation enzyme liver 7235
Microsome membrane cytochrome P450 293
Microsome membrane structure calorimetry 2929
Microsome pancreas mannosyltransferase 224
Microsome pea hemoprotein 199
Microsome peroxygenase pea 6118
Microsome uterus calcium prostaglandin 1576
Microtubule assembly GTP tubulin 4440
Microtubule assembly tubulin dimethyl sulfoxide 6222
Microtubule assembly virus transformed fibroblast 794
Microtubule assembly zinc 6918
Microtubule lateral projection protein typsin 377
Microtubule yolk sac pinocytosis 7151
Microvicosity dimyristoyllecithin fluorescence depolarization 2163
Microviscosity lecithin paraffin 7500
Milk oligosaccharide 5408
Mitochondria adenine nucleotide transport inhibition 6711
Mitochondria ATPase ATP phosphate exchange 3147
Mitochondria calcium ATP glucocorticoid 1217
Mitochondria calcium pyruvate carboxylase 5372
Mitochondria calcium transport, liver 4539
Mitochondria citrate transport regulation bicarbonate 5661
Mitochondria contraction cation proton transport 7932
Mitochondria coupling factor subunit 4743
Mitochondria cytochrome P 450 8788
Mitochondria DNA 8S 2984
Mitochondria electrochem proton gradient thermodn 8459
Mitochondria flavoprotein iron sulfur 8440
Mitochondria gene phosphorylation Schizosaccharomyces 5716
Mitochondria heart subsarcolemmal interfibrillar 8731
Mitochondria membrane protein kinase 807
Mitochondria membrane succinate dehydrogenase 1582
Mitochondria nucleoside diphosphokinase 4232
Mitochondria palmitoylcarnitine pyruvate dehydrogenase 1552
Mitochondria phosphate binding ATPase heart 2891
Mitochondria phosphorylation exchange reaction 2486
Mitochondria protein formation formylmethionyl RNA 2519
Mitochondria protein formation HeLa 1702
Mitochondria Saccharomyces ATPase inhibitor 671
Mitochondria sperm pyruvate metab 1309
Mitochondrial DNA replication polymerase 7888
Mitosis DNA structure fibroblast 141
Mitosis histone disulfide group chromatin 4962
Mitrosylhemoglobin Kansas ESR 1331
Model adenylate cyclase activation GTP 7909
Model membrane lipase colipase 4319
Mol motion proteoglycan cartilage 3617

Mol structure copper glycyl alaninato 8840
Molybdate sulfite oxidase reconstitution 4988
Molybdenum cofactor sulfite oxidase reconstitution 4994
Molybdenum sulfite oxidase 2017
Monkey SV40 virus DNA 5124
Monkey SV40 virus DNA hybrid 5115
Monoamine oxidase active site 284
Mononucleotides
See also Nucleotides
Monooxygenase development cytochrome P450 4712
Monooxygenase tridecanone Pseudomonas 8561
Monosaccharide transport erythrocyte membrane 3131
Mucin cervix structure 7788
Mucin endoacetyl galactosaminidase Diplococcus 8609
Mucin purifn structure submaxillary gland 3791
Mucin submaxillary peptide structure 3799
Mucopolysaccharide link protein property 6470
Mucopolysaccharide proteoglycan cartilage distribution 1971
Mucopolysaccharide sulfate invertebrate 2254
Mucor chitosome chitin synthetase 3338
Mule cytochrome c gene 830
Multiplication stimulating activity receptor 3898
Muscarinic cholinergic receptor heart thyroid 7444
Muscarinic receptor heart embryo 8692
Muscle acetylcholine receptor 2143
Muscle acetylcholine receptor structure 8589
Muscle actinin property 5529
Muscle amino acid insulin 1476
Muscle AMP deaminase 1869
Muscle ATP vanadate contamination 7421
Muscle calcium ATPase development 318
Muscle calcium ATPase potassium 1620
Muscle creatine kinase vitamin E 3117
Muscle creatine phosphokinase isoenzyme dystrophy 8382
Muscle cytochrome c metab exercise 416
Muscle frog contraction myosin phosphorylation 4752
Muscle glycogen synthase kinase 1231
Muscle glycolysis purine nucleotide cycle 5054
Muscle hemagglutinin chick 5444
Muscle lectin embryo 6026
Muscle protein kinase catalytic subunit 2691
Muscle protein kinase specificity 4888
Muscle transverse tubule terminal cisterna 5565
Muscle tropomyosin interaction Acanthamoeba actin 3374
Muscle troponin T sequence 971 978 983
Muscular dystrophy creatine phosphokinase 8382
Mutagen nuclease Pseudomonas 8740
Mutant yeast heme 2846
Mutation RNA polymerase sporulation Bacillus 268
Mycobacterium ATPase nucleotide binding 1084
Mycobacterium ATPase trypsin 8229
Mycobacterium diacyl glycerophosphate 6682
Mycobacterium fatty acid synthetase mechanism 5745
Mycobacterium lactate oxidase mechanism 6729
Mycobacterium methylmannose polysaccharide structure 2459
Mycobacterium transacylase specificity 5735
Mycoplasma arginine deiminase 2615
Myelin galactosyl diacylglycerol metab brain 5864
Myelin glycerophospholipid metab brain 4025
Myelin glycosphingolipid formation glioma 2777
Myeloblastosis virus DNA polymerase 1425
Myeloma glycoprotein glycosylation Ig chain 2372
Myeloma Ig cryopptn solute 8002
Myeloperoxidase singlet oxygen formation 4803
Myofibril protein turnover radioassay 3430
Myoglobin cobalt ESR 620
Myoglobin Hb photodissocn 7955
Myoglobin histidine tautomerization NMR 4968
Myoglobin interaction oxygen 4882
Myoglobin reaction carbon monoxide 7447
Myoglobin reaction carbon monoxide heme 7475
Myoglobin spectra pressure 4098
Myohemerythrin structure symmetry 3012
Myosin actin thyroid 8285
Myosin AMP deaminase 1869
Myosin ATPase ATP analog 1673
Myosin ATPase heart ATP analog 1681
Myosin ATPase heart thyrotoxicosis 6925
Myosin binding ADP 8085
Myosin blood platelet function 4371
Myosin heavy chain half life 3422
Myosin heavy chain kinase Acanthamoeba 8329
Myosin II Acanthamoeba 6501
Myosin phosphorylation frog muscle contraction 4752
Myxine insulin adipocyte 602
NAD alc dehydrogenase kinetics 3493
NAD analog dehydrogenase coenzyme 4125
NAD analog DNA formation nucleus 4134
NAD analog interaction alc dehydrogenase 8990
NAD urocanase coenzyme Pseudomonas 5701
NADH alc dehydrogenase kinetics 3493
NADH CoQ reductase arylazidoalanine NAD 8990
NADP aldehyde reductase liver 3821
NADP NADPH stomach mucosa 8572
NADPH cytochrome P450 reductase structure 437
NADPH formation Escherichia 3382
NADPH glucose phosphate dehydrogenase metab 3709
NADPH NADP stomach mucosa 8572
NADPH photooxidn singlet oxygen 8554
Nematode methylacetoacetate reductase 4215
Neonate lung superoxide dismutase oxygen 3509
Neoplasm arylsulfatase basophil 7074
Neoplasm brain myelin glycosphingolipid 2777
Neoplasm mammary estrogen receptor 3703
Neoplasm mammary regression protein kinase 6349
Neoplasm pancreas insulin cyclic AMP 92
Neoplasm permeability ATP 4584
Neoplasm regression mammary protein kinase 6342
Neoplasm ribonucleoprotein polyadenylate nucleus 1156
Neoplasm steroidogenesis adenosine 687
Nereis cuticle collagen fragment 8018
Nerve cell adhesion selectivity 7625
Nerve cholinergic receptor bungarotoxin 8629
Nerve growth factor subunit dissocn 8532
Nerve growth factor tyrosine hydroxylase 5859
Neuraminidase Diplococcus 8615
Neuroblastoma protein cyclic AMP 4850
Neurospora ATPase plasma membrane 3357
Neurospora carnitine pathway 7437
Neurospora Cell membrane potential cyclic AMP 7146
Neurospora glutamate dehydrogenase peptide sequence 8142 8150 8160 8174 8182 8196
Neurospora glutamine synthetase 8724
Neurospora glutamine synthetase messenger 3028
Neurospora lysine methyltransferase 5651
Neurospora ornithine aminotransferase arginine 6974
Neurotensin receptor mast cell 7174 7180
Neurotoxin activation sodium ionophore 8669
Newborn protein skin tonofilament 2127
Nicotinamide adenine dinucleotide
See NAD
Nitrate reductase Escherichia membrane 1696
Nitric oxide denitrification Pseudomonas 212
Nitric oxide Hb 403
Nitrite denitrification Pseudomonas 212
Nitrite reductase spinach 896
Nitroazidophenylcystamine dioxide protein crosslinking 5514
Nitrobenzoxadiazolyl lysozyme conformation 2507
Nitroethane oxidn glucose oxidase 4361
Nitrogen ATP sulfurylase tobacco 1858
Nitrogenase iron protein *Clostridium* 7081
Nitrogenase iron protein Clostridium 7089 7093
Nitrophenol lactose repressor spectra 3153
Nitrophenylphosphatase lead 5201
Nitroprusside guanylate cyclase liver 5804
Nitrous acid nuclease Pseudomonas 8740
Nitrous oxide denitrification Pseudomonas 212
NMR carbon 13 lysozyme 1786 1795
NMR cholesteryl ester triolein phase 8071
NMR ferredoxin Clostridium 2245
NMR fluorine transfer RNA 4418
NMR substrates arginine kinase correction of page 6245 6245
Nomenclature enzyme multiple form 5939
Nomenclature ribosome protein 9065
Nonhistone protein concanavalin A 7062
Noradrenaline lipolysis adipose kinetics 8833
Noradrenergic receptor brain 6450
Norepinephrine potassium efflux parotid 5472
Nose hyaluronate cartilage 420
Nuclear magnetic resonance
See NMR
Nuclear RNA heterogenous protein 7307
Nuclease Bacillus ribosomal RNA 1350
Nuclease chromatin DNA 7635
Nuclease precursor Staphylococcus 6544
Nuclease Pseudomonas carcinogen mutagen 8740
Nuclease reaction DNA modified pyrimidine 3185
Nuclease RNA double stranded 4092
Nuclease staphylococcal hybridization conformation 125
Nucleic acids
See also DNA, Messenger RNA, Poly(adenylic acid), RNA, and Transfer RNA
Nucleolus liver RNA aflatoxin B1 3245
Nucleoside diphosphate kinase heart 4232
Nucleoside methylated messenger RNA 1764
Nucleoside phosphorylase deficiency inosine metab 4428
Nucleoside triphosphatase avian myeloblastosis virus 6700
Nucleosides
See also Ribonucleosides and Trinucleosides
Nucleosome chromatin acetylation histone 5962
Nucleosome chromatin structure processing 4729
Nucleosome DNA structure endonuclease 3003
Nucleosome histone binding site 6516
Nucleosome spacing chromatin heterogeneity 8269
Nucleotide adenine immobilization sol copolymer 6631
Nucleotide adenine transport mitochondria inhibition 6711
Nucleotide antibody determinant 3102
Nucleotide beta adrenergic receptor binding 7207
Nucleotide binding site ATPase 1084
Nucleotide charge metab regulation Escherichia 4151
Nucleotide cycle purine muscle glycolysis 5054
Nucleotide cyclic animal cell transport 2010
Nucleotide guanine activation adenylate cyclase 5180
Nucleotide guanine adenyl cyclase glucagon 3829
Nucleotide guanine adenylate cyclase 3766
Nucleotide guanine prostaglandin receptor 5295
Nucleotide guanyl activation adenylate cyclase 7909
Nucleotide phosphodiesterase cyclic hepatoma dexamethasone 1448
Nucleotide polymerase erythroid cell 273
Nucleotide protein complex adenylate cyclase 2784
Nucleotide pyrimidine formation multifunction enzyme 6379
Nucleotide sequence arginine transfer RNA 8245
Nucleotide sequence galactose operon 3538
Nucleotide sequence messenger RNA reovirus 7842
Nucleotide sequence ribosome RNA 4256
Nucleotide sequence ribosome RNA gene 8126
Nucleotide sequence transfer RNA precursor 2311
Nucleotidyltransferase transfer RNA Escherichia 5584
Nucleotidyltransferase transfer RNA mechanism 5589
Nucleus adrenal medulla protein phosphorylation 8365
Nucleus brain protein formation development 1819

Nucleus DNA formation NAD analog 4134
Nucleus liver RNA aflatoxin B1 3245
Nucleus mammary estrogen receptor 3703
Nucleus membrane lymphoid cell 2134
Nucleus neoplasm cyclic AMP binding 6349
Nucleus oviduct estrogen receptor 2060
Nucleus polyadenylate diphosphoribose synthetase liver 7000
Nucleus protein kinase liver 6660
Nucleus ribonucleoprotein formation ribosome 721
Nucleus ribonucleoprotein polyadenylate neoplasm 1156
Nucleus RNA polymerase estradiol 4607
Nucleus triiodothyronine receptor liver 6799
Nucleus tyrosine aminotransferase degrdn 7834
Nucleus uterus estrogen receptor 6823 8206
Obesity hyperglycemia lipase cyclic AMP 7243
Octadecenoate isomers liver hepatoma correction of page 1965 4015
Octadecenoate liver hepatoma 1965
Octanoate albumin binding structure 4326
Oleate acylglycerophosphate Mycobacterium 6682
Oleate Escherichia unsatd fatty acid 5488
Oleoyl CoA adenine nucleotide transport 6711
Oligoribonucleotide contamination com GTP dGTP 8498
Oligosaccharide formation cell membrane phospholipid 4250
Oligosaccharide formation cotton lipid 2444
Oligosaccharide formation mannosyltransferase aorta 2498
Oligosaccharide formation UDP glucose Escherichia 6299
Oligosaccharide formation UDP glucose fibroblast 1780
Oligosaccharide lipid complex formation 224
Oligosaccharide mannosyl lipid animal cell 3561
Oligosaccharide milk 5408
Oligosaccharide urine pregnancy lactation 1014 1034
Oligosaccharides urine pregnancy lactation 1023
Omega oxidn fatty acid acetyl group 4379
Ommastreppes chondroitin sulfate 4570
Operon galactose regulation region sequence 3538
Opsin glycoprotein blood serum 7156
Organ cholesterol formation physiol 3646
Organ sterol formation lipoprotein 3652
Ornithine aminotransferase glutamate dehydrogenase 1250
Ornithine aminotransferase Neurospora arginine 6974
Ornithine decarboxylase multiple form 2860
Ornithine decarboxylase turnover 2866
Ornithine transcarbamylase liver disorder 6464
Ornithine transcarbamylase pyridoxal phosphate 4276
Ornithine transcarbamylase regulation orotate Escherichia 5928
Orotate phosphoribosyltransferase orotidine phosphate decarboxylase 8374
Orotate regulation ornithine transcarbamylase Escherichia 5928
Outer membrane lipoprotein Escherichia 2324
Ovalbumin acetylation prevention 8781
Ovalbumin formation saccharide lipid 1007
Ovalbumin gene anticoding purifn 5789
Ovalbumin gene endonuclease map 4722
Ovalbumin gene insertion plasmid 1840
Ovalbumin messenger RNA oviduct estrogen 2060
Ovalbumin messenger RNA purifn 6666
Ovary cyclic AMP gonadotropin 8869
Oviduct chicken endoplasmic reticulum enzyme 7901
Oviduct nucleus estrogen receptor 2060
Oviduct ovalbumin formation 1007
Oviduct polysome messenger RNA purifn 6666
Oviduct progesterone receptor subunit 299 308
Oviduct protein glycosylation development 4330
Ovomucoid messenger RNA purifn 6666
Ovotransferrin fractionation carbohydrate structure 5437
Oxalacetate metab Pseudomonas 1257
Oxalate transferrin copper ESR 6090
Oxidase amine active site kynuramine 8081
Oxidase amino acid conformation 8035
Oxidase amino acid kinetics 4464
Oxidase cytochrome carbon monoxide 5498
Oxidase cytochrome liposome 3208
Oxidase cytochrome liposome respiratory control 6981
Oxidase glucose nitroethane oxidn 4361
Oxidase lactate mechanism Mycobacterium 6729
Oxidase monoamine active site 284
Oxidase pyruvate activation protease 7877
Oxidase pyruvate activation protease lipid 7883
Oxidase pyruvate detergent ligand 5990
Oxidase sterol liver 5852
Oxidase sulfite heme molybdenum 2017
Oxidase sulfite reconstitution molybdate 4988
Oxidase sulfite reconstitution molybdenum cofactor 4994
Oxidase tryptophan 4413
Oxidase xanthine oxidn liposome erythrocyte 6721
Oxidative phosphorylation kinetics mechanism 427
Oxidative phosphorylation uncoupler Bacillus 5936
Oxidizing system ethanol microsome 7124
Oxidn Hb hydroxylamine phosphate 6105
Oxidn omega fatty acid acetyl group 4379
Oxidn redn protein catalyst 5612
Oxidoreductase menadione induction liver genetics 157
Oxidoreductase pyruvate ferredoxin Clostridium 2657
Oxidoreductase thiol protein disulfide 7163
Oxoestrenyl acetate ketosteroid isomerase 6151
Oxohydroxyarginine Streptomyces arginine metab 5267
Oxygen deficiency heart alanine formation 5010
Oxygen deuterohemoglobin binding 4225
Oxygen equil blood Adair equation 2331
Oxygen exchange carbonic anhydrase mechanism 3332
Oxygen exchange chloroplast photophosphorylation 6769
Oxygen Hb binding pressure 4102
Oxygen Hb carbonyl compd sickling 8542
Oxygen Hb subunit carbon dioxide 2952
Oxygen interaction myoglobin Hb 4882
Oxygen neonate lung superoxide dismutase 3509
Oxygen proton membrane energy Escherichia 5875
Oxygen reaction Hb conformation 7538
Oxygen singlet formation myeloperoxidase 4803
Oxygen singlet NADPH photooxidn 8554
Oxygen singlet oxidn liposome erythrocyte 6721
Oxygenase heme liver 5900
Oxygenase heme liver cobalt 219
Oxygenase indoleamine kinetics mechanism 4643
Oxygenase indoleamine superoxide intestine 2774
Oxygenase ketone Pseudomonas 8561
Oxygenase ribulose bisphosphate inhibition 8344
Oxygenase tryptophan liver glucocorticoid development 4354
Oxygenation Hb S aggregation 7468
Oxygenation hemoprotein kinetics ESR 620
Oxyhemerythrin reaction anion kinetics 6069
Oxyhemoglobin conformation photolysis 5783
Oxyhemoglobin dissocn erythrocyte 2331
Oxyhemoglobin oxidn hydroxylamine phosphate 6105
Oxyhemoglobin photolysis superoxide methemoglobin 1226
Oxyhemoglobin subunit assocn thermodn 82
Ozone inactivation ATPase erythrocyte membrane 8537
Palmitate acylglycerophosphate Mycobacterium 6682
Palmitate bilirubin reaction albumin 7483
Palmitoylcarnitine mitochondria pyruvate dehydrogenase 1552
Palmityl CoA glycogen synthase inhibition 7812
Pancreas amylase messenger RNA 5522
Pancreas elastase detn serum 61
Pancreas glucagon property 1847
Pancreas hexose metab insulin release 8519
Pancreas microsome mannosyltransferase 224
Pancreas neoplasm insulin cyclic AMP 92
Pancreas phospholipase A2 sequence 1189
Pancreas RNA development embryo 7391
Pancrease glycolipid glucosyltransferase 2271
Papain interaction phenylalanylglycinal deriv 6776
Paracoccus protein iron sulfur 7826
Paraffin lecithin microviscosity 7500
Paraquat superoxide dismutase Escherichia 7667
Parasympatholytic acetylcholine receptor 4811
Parasympathomimetic acetylcholine receptor 4811
Parathormone binding kidney membrane 1071
Parathormone receptor kidney membrane 1079
Parathormone structure 8261
Parathyroid hormone inhibitor 5847
Parathyroid hormone receptor kidney 1071
Parinarate incorporation lipid CHO cell 7916
Parotid adrenergic receptor 5472
Parotid calcium transport adrenergic cholinergic 3629
Parotid potassium release epinephrine 5478
Parvalbumin regulation cyclic AMP phosphodiesterase 5609
Parvalbumin structure 2834
Patella acetylgalactosaminidase 5194
Pea cellulase substrate specificity 1402
Pea hydroxylase indole hydroperoxide 6118
Pea microsome hemoprotein 199
Penicillamine collagen crosslinking 254
Penicillin alanine carboxypeptidase hydroxylamine 7525
Penicillinase releasing protease Bacillus 1745
Penicillium exogalactofuranosidase 3219
Penicillium mannosyltransferase glycopeptide formation 2187
Pentose phosphate pathway Tetrahymena 1589
Pepsin substrate pepsinogen activation 4438
Pepsinogen activation pepsin substrate 4438
Pepsinogen crystal structure 8728
Pepstatin protease liver lysosome 7511
Peptidase PZ chick embryo 4855
Peptide acetyltryptophanamide oxidn enzyme 4413
Peptide antigen HLA 7555
Peptide asparaginase active site 2072
Peptide ATPase reconstitution 3480
Peptide barnase RNase complementation 3252
Peptide bond specificity protease Bacillus 1745
Peptide compn thymic factor 8040
Peptide fluoroacetyl inhibition elastase leukocyte 5931
Peptide HLA antigen 4682 4694
Peptide insol automatic sequencing determent 2218
Peptide lysozyme antibody combining site 8784
Peptide mapping proteolysis electrophoresis 1102
Peptide phosphorylase kinase specificity 5666
Peptide sequence arabinose binding protein 5135
Peptide sequence blood platelet factor 6276
Peptide sequence cholera toxin 7249 7257
Peptide sequence chorioic gonadotropin 5386
Peptide sequence chorionic gonadotropin 5393
Peptide sequence circulating thymic factor 8045
Peptide sequence cytochrome b5 8549
Peptide sequence flavodoxin Desulfovibrio 1453
Peptide sequence glutamate dehydrogenase Neurospora 8142 8150 8174 8182 8196
Peptide sequence lysozyme precursor 6386
Peptide sequence mucin cervix 7788
Peptide sequence Neurospora glutamate dehydrogenase 8160
Peptide sequence nitrogenase iron protein 7081 7089 7093
Peptide sequence phage MSR protein 7761
Peptide sequence phage MS2 protein 7752 7773
Peptide sequence phospholipase A2 Crotalus 4913
Peptide sequence preproalbumin liver 6846
Peptide sequence prethrombin thrombin 4942

Peptide sequence protein iron sulfur 7826
Peptide sequence protein phage Qbeta 990
Peptide sequence statherin 1689
Peptide sequence thionein I 8217
Peptide sequence troponin C 6356
Peptide sequence troponin T 971 978 983
Peptide submaxillary mucin structure 3799
Peptide trypsin analysis 6510
Peptide tryptophan reaction DNA 244
Peptides
See also Oligopeptides, Polypeptides, and Tripeptides
Peptidoglycan formation fluorescent substrate 2296
Peptidophosphogalactomannan mannosyltransferase Penicillium 2187
Periplasmic space Escherichia Salmonella 7850
Peroxidase cobalt deriv 6268
Peroxidase cytochrome c kinetics 919
Peroxidase hematin analog CD 8222
Peroxidase thyroid concanavalin agarose 1264
Peroxygenase pea microsome 6118
Persantin cell transport hepatoma 4185
PGE receptor guanine nucleotide 5295
PGE1 adenyl cyclase adipocyte 3554
PGE1 biosynthesis kidney mechanism 2069
PGE2 calcium uterus microsome 1576
PH Hb S aggregation 7468
Phage Charon vector ribosome protein gene 7355
Phage deoxynucleotide kinase gene promoter 2304
Phage DNA replication deoxycytidylate deaminase 8603
Phage DNA replication Escherichia 2524
Phage fd protein liposome CD 6253
Phage lambda Escherichia ribosomal protein gene 7323
Phage MS2 A protein sequence 7752 7761 7773
Phage Qbeta protein peptide sequence 990
Phage T even transfer RNA 4935
Phage tRNA synthetase modification factor 6640
Phage T3 RNA polymerase 6485
Phage T4 DNA RNA ligase 3987
Phage T4 DNA thymine hydroxymethylcytosine 3019
Phage T5 DNA polymerase mechanism 8700 8708
Phase cholesteryl ester triolein NMR 8071
Phase diagram lecithin sphingomyelin 4449
Phase transition lipid Escherichia calorimetry 4749
Phenobarbital aldehyde dehydrogenase induction 6169
Phenyl ester chymotrypsin acylation 1633
Phenylalanine hydroxylase phosphatase liver 7711
Phenylalanine Pseudomonas pretyrosine 5839
Phenylalanylglycinal deriv interaction papain 6776
Phenylephrine cyclic AMP liver 8645
Phenylethanolamine catecholamine binding brain 6450
Phenylhexatriene fluorescence depolarization membrane 7500
Phosphatase acid spleen leukemia 3371
Phosphatase alk Bacillus 6813
Phosphatase alk conformation thermodn 7042
Phosphatase alk phosphodiesterase Thermus 3399
Phosphatase alk phosphoprotein dephosphorylation 6082
Phosphatase alk zinc phosphate interaction 7053
Phosphatase glucose brain deoxyglucose transport 7035
Phosphatase glucose transport microsome 8512
Phosphatase phenylalanine hydroxylase liver 7711
Phosphatase phosphoglycolate erythrocyte 2441
Phosphatase phosphoprotein dephosphorylation phosphoprotein kinase 2855
Phosphatase phosphoprotein Escherichia Salmonella 4416
Phosphate activation phosphofructokinase yeast 6394
Phosphate analog dehydrogenase phosphorylase 5925
Phosphate Bacillus alk phosphatase 6806
Phosphate binding ATPase heart mitochondria 2891
Phosphate exchange polynucleotide kinase 3176
Phosphate Hb oxidn hydroxylamine 6105
Phosphate reverse transcriptase inhibition 11
Phosphate sugar polyprenyl hydrogenation catalyst 5619
Phosphate water exchange phosphorylation 2478
Phosphate zinc interaction alk phosphatase 7053
Phosphates
See also ADP, AMP, and ATP
Phosphatidylmonoglucosyl diacylglycerol formation Pseudomonas 4395
Phosphatidylserine synthetase Escherichia antibiotic 5911
Phosphatidyltransferase inositol liver 5419
Phosphoarginine binding arginine kinase 3344
Phosphodiesterase alk phosphatase Thermus 3399
Phosphodiesterase cyclic AMP egg 4662
Phosphodiesterase cyclic AMP inhibitor 6322
Phosphodiesterase cyclic AMP regulation parvalbumin 5609
Phosphodiesterase cyclic GMP lung 4078
Phosphodiesterase cyclic GMP specificty 5211
Phosphodiesterase cyclic nucleotide activation lysolecithin 4872
Phosphodiesterase cyclic nucleotide activator 2437
Phosphodiesterase cyclic nucleotide inhibitor brain 4175
Phosphodiesterase cyclic nucleotide modulator protein 7440
Phosphodiesterase cyclic nucleotide protein testis 8415
Phosphodiesterase cyclic nucleotide purifn 43
Phosphodiesterase endonuclease activity snake venom 8652
Phosphodiesterase regulator cation binding 4108
Phosphoenolpyruvate carboxykinase activator protein 1431
Phosphoenolpyruvate carboxykinase cyclic AMP 655
Phosphoenolpyruvate carboxykinase messenger RNA translation 8398
Phosphoenolpyruvate mannitol phosphotransferase Spirochaeta 8890
Phosphoenolpyruvate metab Pseudomonas 1257
Phosphoenolpyruvate sugar phosphotransferase bacteria 8899
Phosphoenolpyruvate synthetase Escherichia property 3121
Phosphofructokinase activation phosphate yeast 6394
Phosphofructokinase erythrocyte subunit structure 3515
Phosphofructokinase eythrocyte membrane allosteric property 7418
Phosphoglycerate dehydrogenase kinetics mechanism 1539
Phosphoglycerate dehydrogenase serine glycine 1527
Phosphoglycerate kinase interaction membrane erythrocyte 6715
Phosphoglycolate phosphatase erythrocyte 2441
Phosphoglycolipid formation Pseudomonas 4395
Phosphokinase creatine muscular dystrophy 8382
Phospholipase A2 conformation calcium micelle 6011
Phospholipase A_2 histidine modification 2405
Phospholipase A2 interface recognition 2948
Phospholipase A2 lipase kinetics mechanism 4313
Phospholipase A2 peptide sequence Crotalus 4913
Phospholipase A2 sequence pancreas 1189
Phospholipid alc oxidn 7124
Phospholipid cell membrane oligosaccharide formation 4250
Phospholipid CHO cell parinarate incorporation 7916
Phospholipid cytochrome b5 exchange 4842
Phospholipid exchange protein liver 1613
Phospholipid formation brain serine 260
Phospholipid glycosylation virus fibroblast 2621
Phospholipid interaction respiratory enzyme 3194
Phospholipid liposome protein incorporation 3208
Phospholipid membrane Escherichia antibiotic 5911
Phospholipid membrane Escherichia macromol 4487
Phospholipid metab myelin microsome brain 4025
Phospholipid Saccharomyces inositolless death 8684
Phospholipid translocation Salmonella membrane 7405
Phospholipid vesicle cytochrome b5 reductase 5656
Phospholipid vesicle Salmonella 7398
Phospholipoprotein yolk Xenopus 7992
Phosphoprotein brain 5155
Phosphoprotein dephosphorylation alk phosphatase 6082
Phosphoprotein phosphatase dephosphorylation phosphoprotein kinase 2855
Phosphoprotein phosphatase Escherichia Salmonella 4416
Phosphoprotein phosphatase lipase adipose tissue 1484
Phosphoprotein phosphatase reticulocyte 3738
Phosphoribosylpyrophosphate synthetase Salmonella 8504
Phosphoribosylpyrophosphate synthetase subunit 3911
Phosphoribosylpyrophosphate synthetase subunit assocn 3919
Phosphoribosyltransferase uracil transport Escherichia 7620
Phosphoroglycerol adenosine formation cell membrane 1719
Phosphoromethanol adenosine formation cell membrane 1719
Phosphorus vitamin D 8677
Phosphorylase activation cyclic AMP 7488
Phosphorylase dehydrogenase phosphate analog 5925
Phosphorylase kinase protein calcium 7449
Phosphorylase kinase protein kinase 625
Phosphorylase kinase reaction reversibility 3408
Phosphorylase kinase reaction reversibility correction of page 3408 7413
Phosphorylase kinase specificity peptide 5666
Phosphorylase liver adrenergic calcium 2662
Phosphorylase nucleoside deficiency inosine metab 4428
Phosphorylase polynucleotide Escherichia 6885
Phosphorylase purine nucleoside mechanism 732
Phosphorylated retinoid reaction GDP mannose 2575
Phosphorylation adenylate kinase stereospecificity 4445
Phosphorylation adipocyte insulin 2226
Phosphorylation alk phosphatase conformation 7042
Phosphorylation ATPase ATP mechanism 633
Phosphorylation deoxyglucose brain glucose phosphatase 7035
Phosphorylation electrochem proton gradient mitochondria 8459
Phosphorylation energy transduction exchange reaction 2478
Phosphorylation exchange reaction mitochondria 2486
Phosphorylation gene mitochondria Schizosaccharomyces 5716
Phosphorylation glucose liver inanition 8404
Phosphorylation hydrogen transport ATPase 2956
Phosphorylation myosin frog muscle contraction 4752
Phosphorylation oxidative kinetics mechanism 427
Phosphorylation oxidative uncoupler Bacillus 5936
Phosphorylation potential electron transport 8455
Phosphorylation protein adrenal medulla nucleus 8365
Phosphorylation protein brain 5155
Phosphorylation protein erythrocyte membrane 508
Phosphorylation protein ribosome ethionine 6217
Phosphorylation protein synaptosome calcium transport 2764
Phosphorylation RNA polymerase 3082
Phosphorylation RNA polymerase II dephosphorylation 6750
Phosphorylation self protein kinase 2780
Phosphorylation troponin protein kinase 851
Phosphorylation uncouplers DNA replication 1148

Phosphorylation yeast DNA RNA polymer= ases correction of page 3082, 8772
Phosphotransferase histone H4 7109
Phosphotransferase mannitol phosphoenol= pyruvate Spirochaeta 8890
Phosphotransferase sugar phosphoenolpyru= vate bacteria 8899
Photoaffinity labeling adipocyte membrane 181
Photodissocn Hb myoglobin 7955
Photolysis oxyhemoglobin superoxide meth= emoglobin 1226
Photooxidn NADPH singlet oxygen 8554
Photophosphorylation coupling factor chloro= plast 1814
Photophosphorylation coupling factor proton transport 8007
Photophosphorylation oxygen exchange chloroplast 6769
Photoreactive GTP deriv adenylate cyclase 7224
Photosynthesis reaction center I structure 4564
Phycocyanin crystal structure 8258
Phycoerythrin crystal structure 8258
Phycoerythrin subunit structure Porphyridi= um 32
Physiol cholesterol formation organ 3646
Phytoene synthetase tomato 1523
Phytohemagglutinin affinity chromatog 57
Phytohemagglutinin biochem biol bean 2961
Phytohemagglutinin lymphocyte glucocorti= coid receptor 2972
Phytohemagglutinin subunit reassocn bean 2967
Phytosphingosine formation intestine 5815
Pinocytosis yolk sac glucagon 7151
Pituitary culture growth hormone dexame= thasone 3870
Pituitary growth hormone triiodothyronine receptor 6052
Pituitary liver protein formation 3611
Placenta DNase apurinic apyrimidinic 1235
Placenta RNase inhibitor 5904
Placental lactogen toxin conjugate prepn 1505
Plant glycolipid formation tunicamycin 7431
Plant sulfhydrylase homocysteine formation 3436
Plasma amine oxidase active site 8081
Plasma cell immunoglobulin secretion tuni= camycin 4402
Plasma lipoprotein liver inanition 5258
Plasma lipoprotein property cholestasis 2113
Plasma prealbumin purifn property 5100
Plasma thyroxine binding globulin 8713
Plasmid dihydrofolate reductase trimethoprim 2319
Plasmid Escherichia reaction endonuclease 451
Plasmid ovalbumin gene insertion 1840
Plasmin fibrin fibrinogen polymn 6184
Plasmin heavy chain property 2175
Plasmin plasminogen activator 1141
Plasmin plasminogen protease inhibitor 3945
Plasminogen activation streptokinase 492
Plasminogen activator formation cell calcium 6256
Plasminogen activator heart 3729
Plasminogen activator plasmin streptokinase 1141
Plasminogen mol form 7725
Plasminogen plasmin protease inhibitor 3945
Platelet actin 8300
Platelet ATP adenylate charge 1752
Platelet cyclic AMP cholesterol 3310
Platelet factor peptide sequence 6276
Platelet function myosin 4371
Platelet glucocorticoid receptor reactivation 7579
Platelet glycoprotein disulfide group 2121
Platelet GMP cyclase 1279
Platelet hydroxytryptamine transport mem= brane 2170
Platelet proteinase calcium 5602
Platelet thrombin interaction structure 7118
Platelet thromboxane synthetase 5871
Podophyllotoxin tubulin binding colchicine 1134
Polyacetylglucosaminyl pyrophosphate unde= caprenyl Bacillus 4118
Polyacrylamide gel protein radioiodination 6510
Polyadenylate diphosphoribose synthetase nucleus liver 7000
Polyadenylate polymerase vaccinia virus 6939
Polyadenylate ribonucleoprotein nucleus neoplasm 1156
Polyadenylate RNA protein assocn 3525
Polyamine hydrogen peroxide adipocyte 560
Polyamine ribosome dissocn equil 652
Polychaete worm collagen fragment 8018
Polycyclic hydrocarbon oxide hydration 6328
Polyethylene glycol catalase immunol 3582
Polyethylene glycol serum albumin immunol 3578
Polymerase DNA adriamycin bacteriophage 2670
Polymerase DNA baker yeast 1873
Polymerase DNA Escherichia subunit 6478
Polymerase DNA extn calcium 4011
Polymerase DNA leukemia virus 11
Polymerase DNA liver HeLa mitochondria 3351
Polymerase DNA mechanism phage T5 8700 8708
Polymerase DNA myeloblastosis virus 1425
Polymerase DNA polynucleotide biosynthesis 1932
Polymerase DNA sarcoma virus 2281 2290
Polymerase DNA subunit compn 6528
Polymerase DNA virus binding RNA 6878
Polymerase mitochondrial DNA replication 7888
Polymerase nucleotide erythroid cell 273
Polymerase polyadenylate vaccinia virus 6939
Polymerase ribonucleotide Histoplasma 4337
Polymerase RNA adenovirus transcription 8753
Polymerase RNA assocn RNase H 8848
Polymerase RNA Caulobacter 4157
Polymerase RNA Cibacron blue F3GA 5724
Polymerase RNA DNA heparin 5403
Polymerase RNA III adenovirus 8762
Polymerase RNA mutation sporulation Ba= cillus 268
Polymerase RNA phage T3 6485
Polymerase RNA phosphorylation 3082
Polymerase RNA phosphorylation dephos= phorylation 6750
Polymerase RNA priming oligoribonucleotide 8498
Polymerase RNA subunit rifampicin resis= tance 9024
Polymerase RNA uterus estradiol 1092 4607
Polymerase RNA vaccinia virus 6930
Polynucleosome DNA spacer 8269
Polynucleotide biosynthesis DNA polymerase 1932
Polynucleotide kinase phosphate exchange 3176
Polynucleotide phosphorylase Escherichia 6885
Polynucleotide triphosphatase vaccinia virus 3092
Polypeptides
See also Peptides
Polypeptides ehrlich messenger RNA ribonu= cleoprotein correction of page 3525 9081
Polyprenol formation plant tunicamycin 7431
Polyprenol pyrophosphate glycosyltransfer= ase 3057
Polyprenyl phosphate mannosyltransferase retina specificity 5622
Polyprenyl phosphate sugar hydrogenation catalyst 5619
Polyribosome protein accessibility ribosome 5547
Polysaccharide acetylated methylmannose Streptomyces 2470
Polysaccharide fatty acid synthetase me= chanism 5740
Polysaccharide methylmannose structure Mycobacterium 2459
Polysome fatty acid synthetase development 7015
Polysome oviduct messenger RNA purifn 6666
Porphobilinogen synthase active site mercap= to 8964
Porphyridium phycoerythrin subunit struc= ture 32
Porphyridium superoxide dismutase 6421
Porphyrin liver hormone 2428
Potassium adenylate deaminase ATP 1606
Potassium albumin formation cellfree 1272
Potassium ATPase cell membrane 3035
Potassium calcium ATPase muscle 1620
Potassium efflux parotid catecholamine 5472
Potassium release parotid epinephrine 5478
Potassium sodium transport ATPase lipo= some 5630
Potassium transport Dio9 Schizosaccharo= myces 4577
Potassium transport Escherichia energy 1394
Potential cell membrane cyclic AMP *Neu= rospora* 7146
Prealbumin liver 5107
Prealbumin plasma purifn property 5100
Prealbumin thyroxine binding site 6076
Pregnancy oligosaccharide urine 1014
Pregnancy oligosaccharides urine 1023
Pregnancy urine oligosaccharide 1034
Pregnenolone binding protein adrenal 464
Pregnenolone cytochrome P 450 8788
Prekallikrein activation Hageman factor 6097
Prelycopersene pyrophosphate synthetase tomato 1523
Preproalbumin peptide sequence liver 6846
Preproinsulin structure 7971
Preprothrombin carboxylase carbon dioxide species 7738
Preputial gland estrogen binding protein 3324
Pressure Hb ligand binding 4102
Pressure heme compd spectra 4098
Prethrombin thrombin peptide sequence 4942
Pretyrosine metal Pseudomonas 5839
Proacrosin sperm purifn activation 1888
Procollagen metab tendon 8391
Progesterone formation ovary gonadotropin 8869
Progesterone meiosis egg Xenopus 1712
Progesterone receptor subunit oviduct 299 308
Progestophilin B characterization 308
Proline resorption kidney 591
Prolyl hydroxylase specificity earthworm 7591
Promoter ribosome protein gene Escherichia 7355
Propionate detn enzyme 504
Propionyl CoA carboxylase mechanism 8338
Propionyl CoA reductase Ascaris 4215
Prostaglandin adrenergic receptor gene expression 1293
Prostaglandin astrocytoma cyclic AMP 6018
Prostaglandin binding protein membrane 3689
Prostaglandin calcium uterus microsome 1576
Prostaglandin E isomerase glutathione re= quirement 890
Prostaglandin E platelet aggregation cholest= erol 3310
Prostaglandin endoperoxide synthetase induction benzopyrene 6591
Prostaglandin formation fibroblast protein 1408
Prostaglandin pathway coronary artery 1123
Prostaglandin receptor guanine nucleotide 5295
Prostate androgen transfer RNA 5692
Protamine gene trout 8062
Protamine messenger RNA trout 1386
Protease activation pyruvate oxidase 7877 7883
Protease Clostridium adenylate cyclase 2039
Protease inhibitor plasminogen plasmin 3945
Protease liver lysosome pepstatin 7511
Protease penicillinase releasing Bacillus 1745
Protease protein kinase precursor activation 7610
Protease purulent sputum 1917
Protease Schizophyllum 8435
Protein A phage MS2 sequence 7752 7761 7773
Protein Acanthamoeba actin gelation 399
Protein accessibility ribosome polyribosome 5547
Protein acetylation prevention 8781
Protein acetylgalactosaminyltransferase substrate 3799
Protein activator guanylate synthase 4384
Protein aminophospholipid sarcoplasmic reticulum 8446
Protein arabinose binding conformation 5142
Protein arabinose binding peptide sequence 5135
Protein assocn messenger ribonucleoprotein 3525
Protein bacteriophage automatic sequencing 2218
Protein basement membrane intestine Ascar= is 3995

Protein biosynthesis enzyme reticulocyte 3738
Protein biotin carboxyl carrier Escherichia 3934
Protein brain synapse 786
Protein calcium binding intestine 4145 8677
Protein cell adhesion retina 6841
Protein Cro bacteriophage lambda 6177
Protein crosslinking nitroazidophenylcysta= mine dioxide 5514
Protein cyclic AMP binding 6494
Protein cyclic AMP binding liver 677
Protein cyclic nucleotide phosphodiesterase 43
Protein cyclic nucleotide phosphodiesterase modulator 7440
Protein cyclic nucleotide phosphodiesterase testis 8415
Protein cytochalasin erythrocyte membrane 5464
Protein degradation human fibroblasts cor= rection of page 3521 406
Protein degrdn Escherichia 8350
Protein degrdn transformed fibroblast 5310
Protein disulfide redn enzyme 4600
Protein disulfide thiol oxidoreductase 7163
Protein DNA binding serum 1881
Protein DNA Escherichia sepn bacteriophage 2734
Protein DNA unwinding Micrococcus 5398
Protein elongation factor gene Escherichia 2154
Protein encephalitogenic proteolysis active site 1723
Protein EPR 3637
Protein erythrocyte membrane crosslinking 8524
Protein erythrocyte membrane extn 6759
Protein erythrocyte membrane lipid site 6909
Protein erythrocyte membrane topog 712
Protein erythrocyte membrane variant 6573
Protein erythrocyte sodium permeability 6764
Protein Escherichia membrane phospholipid 4487
Protein estrogen binding preputial gland 3324
Protein estrogen binding uterus 1358
Protein excitability producing Enterobacter 8884
Protein fatty acid binding liver 5483
Protein fibroblast prostaglandin formation 1408
Protein folate binding choroid plexus 3364
Protein folate binding Lactobacillus 3760
Protein folate binding liver 933
Protein formation adenovirus 4981
Protein formation animal cell purine 5350
Protein formation brain nucleus develop= ment 1819
Protein formation chloride inhibition 4007
Protein formation elongation factor 1471
Protein formation factor Escherichia 6889
Protein formation factor messenger RNA 392
Protein formation fibroblast virus transfor= mation 7640
Protein formation formylmethionyl RNA 3941
Protein formation histidinol 5251
Protein formation inhibitor leukemia 2106
Protein formation initiation factor IF1 1739
Protein formation initition factor androgen 5692
Protein formation liver pituitary 3611
Protein formation mitochondria formylmeth= ionyl RNA 2519
Protein formation mitochondria HeLa 1702
Protein formation release factor 4435
Protein formation Saccharomyces transcrip= tion 1344
Protein formation tobacco sulfur 1858
Protein formation vesicular stomatitis virus 8804
Protein glucose transport erythrocyte 7384
Protein glutamate methyl ester Echerichia membrane 3214
Protein glutamyllysine crosslink skin 1837
Protein glycosylation enzyme endoplasmic reticulum 7901
Protein glycosylation oviduct development 4330
Protein hepatoma cytoplasm 3626
Protein heterogenous nuclear RNA 7307
Protein hydroxycholecalciferol binding cyto= plasm blood 2515
Protein incorporation phospholipid liposome 3208
Protein iron nitrogenase *Clostridium* 7081
Protein iron nitrogenase Clostridium 7089 7093
Protein iron sulfur ESR 5643
Protein iron sulfur Paracoccus 7826
Protein iron sulfur structure 7802
Protein kinase adipose development 1064
Protein kinase adipose tissue development 5356
Protein kinase brain cerebellum 7603
Protein kinase brain synaptosome 5164
Protein kinase carcinoma 6335
Protein kinase catalytic subunit muscle 2691
Protein kinase cyclic AMP 3854 7690
Protein kinase cyclic AMP egg 1712
Protein kinase cyclic GMP 4269 4347 6443
Protein kinase erythrocyte membrane 102
Protein kinase glycogen synthase 1231 7517
Protein kinase inhibitor 3848
Protein kinase inhibitor testis 6322
Protein kinase isoenzyme autophosphoryla= tion 6588
Protein kinase isoenzyme heart 910
Protein kinase liver hormone 528
Protein kinase mammary neoplasm regression 6342
Protein kinase mitochondria membrane 807
Protein kinase nucleus liver 6660
Protein kinase nucleus neoplasm 6349
Protein kinase phosphorylase activation 7488
Protein kinase phosphorylase calcium 7449
Protein kinase phosphorylase kinase 625
Protein kinase precursor activation protease 7610
Protein kinase reaction histone ionic strength 3007
Protein kinase reticulocyte 3738
Protein kinase RNA polymerase 3082
Protein kinase self phosphorylation 2780
Protein kinase specificity muscle 4888
Protein kinase substrate specificity 613
Protein kinase subunit animal tissue 1441
Protein kinase subunit reassocn 7140
Protein kinase troponin phosphorylation 851
Protein link mucopolysaccharide property 6470
Protein lipid interaction membrane 3194
Protein lipid yolk Xenopus 7992
Protein mannosylation virus fibroblast 2621
Protein membrane bioluminescence Beneckea 5150
Protein membrane sepn hydrophobic chro= matog 8957
Protein metab liver lysosome 6955
Protein methionyl transfer RNA binding 3843
Protein microtubule lateral projection typsin 377
Protein microtubule virus transformed fi= broblast 794
Protein moiety lipoprotein sequence 250
Protein monosaccharide transport membrane 3131
Protein muscle insulin 1476
Protein myofibril turnover radioassay 3430
Protein neuroblastoma cyclic AMP 4850
Protein nonhistone concanavalin A 7062
Protein nucleotide complex adenylate cyclase 2784
Protein phage fd liposome CD 6253
Protein phage Qbeta peptide sequence 990
Protein phosphoenolpyruvate carboxykinase activator 1431
Protein phospholipid exchange liver 1613
Protein phosphorylation adrenal medulla nucleus 8365
Protein phosphorylation brain 5155
Protein phosphorylation erythrocyte mem= brane 508
Protein phosphorylation pancreas neoplasm AMP 92
Protein phosphorylation ribosome ethionine 6217
Protein phosphorylation synaptosome calcium transport 2764
Protein pregnenolone binding adrenal 464
Protein prostaglandin binding membrane 3689
Protein radioiodination polyacrylamide gel 6510
Protein rat warfarin resistance 6260
Protein redox redn deazariboflavin 5612
Protein retinal binding retina 3267
Protein ribosomal gene Escherichia Charon phage 7344
Protein ribosomal gene Escherichia lambda phage 7323
Protein ribosomal gene mapping Escherichia 7365
Protein ribosome gene Escherichia 7337
Protein ribosome gene promoter Escherichia 7355
Protein ribosome liver 3961 9071
Protein ribosome nomenclature evolution 9065
Protein ribosome ribonucleoprotein formation 721
Protein Salmonella glutamyl methyltransfer= ase 2793
Protein skin newborn tonofilament 2127
Protein squalene epoxidase activator 5381
Protein structural RNA tumor virus 7818
Protein synaptosome membrane 3862
Protein tryptophan cleavage chlorosuccini= mide urea 4976
Protein virus binding reverse transcriptase 5883
Protein vitamin D3 binding intestine 4501
Protein X gene recA Escherichia 6251
Proteinase B yeast inhibitor 5316
Proteinase erythrocyte membrane polypep= tide calcium 6617
Proteinase estrogen receptor transforming factor 1358
Proteinase platelet calcium 5602
Proteinosis alveolar glycoprotein lung 1172
Proteins
See also Enzymes, Glycoproteins, Lipopro= teins, and names of specific proteins
Proteoglycan aggregated link protein 6470
Proteoglycan artery aorta 4831
Proteoglycan cartilage mucopolysaccharide distribution 1971
Proteoglycan cartilage nose 420
Proteoglycan chondrocyte development 6600
Proteoglycan mol motion cartilage 3617
Proteoglycan polydispersity cartilage 1980
Proteolysis electrophoresis peptide mapping 1102
Proteolysis encephalitogenic protein active site 1723
Prothrombin calcium binding conformation 840
Prothrombin precursor carboxyglutamate formation 7738
Protochlorophyllide formation precursor 4022
Protochlorophyllide formation protoporphy= rin 8347
Proton electrochem gradient mitochondria thermodn 8459
Proton lactose transport Escherichia 7657
Proton membrane energy oxygen Escherichia 5875
Proton translocation Schizosaccharomyces Dio9 4577
Proton transport ATPase liposome 6125
Proton transport mitochondria contraction 7932
Proton transport photophosphorylation coupling factor 8007
Protoporphyrin chlorophyll formation 8347
Protoporphyrin magnesium chlorophyll formation 4022
Pseudomonas denitrification 212
Pseudomonas enzyme oxalacetate metab 1257
Pseudomonas ferredoxin 7802
Pseudomonas glucuronosyl diacylglycerol formation 4391
Pseudomonas glutarate semialdehyde dehyd= rogenase 7979
Pseudomonas hydroxy steroid dehydrogenase 3775 3784
Pseudomonas indole oxidizing enzyme 2648
Pseudomonas indolylalkane hydroxylase 2640
Pseudomonas lysine metab enzyme induction 7987
Pseudomonas nuclease carcinogen mutagen 8740
Pseudomonas phosphatidylmonoglucosyl diacylglycerol formation 4395
Pseudomonas tridecanone monooxygenase 8561
Pseudomonas tyrosine phenylalanine pretyr= osine 5839
Pseudomonas urocanase coenzyme NAD 5701
Pseudoplasmodia cyclic AMP slime mold 4073
Pseudouridine transfer RNA Escherichia 6310
Purifn colony stimulating factor lung 1998
Purine animal cell ribosomal RNA 5350
Purine lymphoblast Lesch 6002
Purine nucleoside phosphorylase deficiency fibroblast 4428
Purine nucleoside phosphorylase mechanism 732
Purine nucleoside phosphorylase substrate analog 5925

Purine nucleotide cycle muscle glycolysis 5054
Putrescine ribosome dissocn equil 652
Pyridine nucleotide transhydrogenase sulfhydryl modification 4552
Pyridoxal metab bacteria 835
Pyridoxal phosphate DNA polymerase 1425
Pyridoxal phosphate ornithine transcarbamylase 4276
Pyridoxamine metab bacteria 835
Pyridoxine aminotransferase metab liver 4958
Pyrimidine deoxyribonucleotide synthesis DNA 6031
Pyrimidine dimer DNA correndonuclease Micrococcus 6280
Pyrimidine dimer incision DNA 6287
Pyrimidine DNA modified reaction nuclease 3185
Pyrimidine nucleotide formation multifunction enzyme 6379
Pyrophosphatase methylguanosine dinucleotide HeLa cell 2815
Pyrophosphokinase ribose phosphate assocn 3919
Pyruvate carboxylase acetyl CoA 51
Pyruvate carboxylase calcium mitochondria 5372
Pyruvate dehydrogenase palmitoylcarnitine mitochondria 1552
Pyruvate dehydrogenase regulation bicarbonate 5661
Pyruvate ferredoxin oxidoreductase Clostridium 2657
Pyruvate kinase active site 5183
Pyruvate kinase gluconeogensis lactate liver 1831
Pyruvate kinase kidney 6108
Pyruvate kinase magnesium nucleotide complex 5967
Pyruvate kinase protein kinase 613
Pyruvate metab Entamoeba acetate 726
Pyruvate metab Pseudomonas 1257
Pyruvate metab sperm epididymis 1303
Pyruvate metab sperm mitochondria 1309
Pyruvate oxidase activation protease 7877
Pyruvate oxidase activation protease lipid 7883
Pyruvate oxidase detergent ligand 5990
Pyruvoyl residue Saccharomyces adenosylmethionine decarboxylase 8212
PZ peptidase chick embryo 4855
Rabbit parvalbumin structure 2834
Radical ribonucleotide reductase 536
Radioassay myofibril protein turnover 3430
Radioiodination protein polyacrylamide gel 6510
Radiolabel sialoglycoprotein 5888
Rat liver dehydrogenases phenobarbital correction of page 6169 9081
Rat resistance warfarin 6260
Reaction endonuclease Escherichia plasmid 451
Receptor acetylcholine muscle 2143
Receptor acetylcholine parasympatholytic 4811
Receptor acetylcholine structure muscle 8589
Receptor adrenergic adenylate cyclase 799
Receptor adrenergic adenylate cyclase lymphoma 5761 5776
Receptor adrenergic heart thyroxine 2787
Receptor adrenergic parotid 5472
Receptor adrenergic parotid potassium 5478
Receptor adrenergic prostaglandin gene expression 1293
Receptor aryl hydrocarbon hydroxylase 8981
Receptor beta adrenergic binding nucleotide 7207
Receptor cell disulfide hybrid protein 1505
Receptor cholinergic agonist interaction kinetics 7648
Receptor cholinergic nerve bungarotoxin 8629
Receptor estradiol kinetics 8856
Receptor estrogen mammary neoplasm 3703
Receptor estrogen oviduct nucleus 2060
Receptor estrogen transforming factor proteinase 1358
Receptor estrogen uterus nucleus 6823 8206
Receptor fibroblast lipoprotein arginine 7279
Receptor FSH testis 4166
Receptor glucagon adenylate cyclase liver 5947
Receptor glucagon adenylate cyclase regulation 5942
Receptor glucagon liver GTP 2790
Receptor glucocorticoid inactivation enzyme 7568
Receptor glucocorticoid lymphocyte phytohemagglutinin 2972
Receptor glucocorticoid thymocyte reactivation 7579
Receptor gonadotropin corpus luteum 8869
Receptor IgE cell membrane 704
Receptor insulin hagfish adipocyte 602
Receptor insulin lymphocyte membrane 5828
Receptor LH subunit testis 522
Receptor LH testis 9002
Receptor lipoprotein cholesterol steroid adrenal 4861
Receptor lipoprotein interaction fibroblast 3980
Receptor membrane detection 1566
Receptor multiplication stimulating activity 3898
Receptor muscarinic cholinergic heart thyroid 7444
Receptor muscarinic heart embryo 8692
Receptor neurotensin mast cell 7174 7180
Receptor noradrenergic brain 6450
Receptor parathormone kidney membrane 1079
Receptor parathyroid hormone kidney 1071
Receptor prostaglandin guanine nucleotide 5295
Receptor steroid activation inhibitor 858
Receptor subunit progesterone oviduct 299 308
Receptor tetanus toxin thyroid membrane 4049
Receptor triiodothyronine liver nucleus 6799
Receptor triiodothyronine pituitary growth hormone 6052
Redn metmyoglobin dithionite 4038
Redn oxidn protein catalyst 5612
Redox cytochrome P450 carbon monoxide 4755
Redox protein redn deazariboflavin 5612
Reductase adrenodoxin ferricyanide cytochrome 2908
Reductase aldehyde liver 2545
Reductase aldehyde liver NADP 3821
Reductase coenzyme leukocyte cholesterolemia 644
Reductase cytochrome b5 phospholipid vesicle 5656
Reductase cytochrome P450 structure 437
Reductase dihydrofolate sulfhydryl Escherichia 6871
Reductase dihydrofolate trimethoprim plasmid 2319
Reductase ferredoxin nitrite spinach 896
Reductase flavin Beneckea 7495
Reductase glycine selenoprotein Clostridium 5337
Reductase hdyroxymethylglutaryl CoA liver sterol 1057
Reductase hydroxymethylglutaryl CoA adrenal lipoprotein 1771
Reductase hydroxymethylglutaryl CoA cholestyramine 6145
Reductase hydroxymethylglutaryl CoA inhibitor 1561
Reductase hydroxymethylglutaryl CoA liver 5852
Reductase hydroxymethylglutaryl CoA liver lipoprotein 2726
Reductase hydroxymethylglutaryl CoA regulation 8924
Reductase hydroxymethylglutaryl coenzyme A hepatoma 950
Reductase hydroxymethylglutaryl induction glucocorticoid 3272
Reductase hydroxymethylglutaryl liver ketocholesterol 5186
Reductase methylacetoacetate nematode 4215
Reductase methylglutaryl fatty acid liver 2822
Reductase NADH CoQ arylazidoalanine NAD 8990
Reductase nitrate Escherichia membrane 1696
Reductase propionyl CoA Ascaris 4215
Reductase ribonucleoside diphosphate purifn detn 6132
Reductase ribonucleotide radical Escherichia 536
Reductase thioredoxin glutathione purifn 6367
Reductase thioredoxin liver thymus 4600
Reduction
See also Redox
Release factor ribosome binding RNA 4435
Release factor ribosome reticulocyte 4514
Renin mol form sulfhydryl 7733
Renin purifn property kidney 2978
Reovirus messenger RNA ribosome 7842
Reovirus messenger RNA ribosome site 6895
Replication DNA virus fd 2534
Replication mitochondrial DNA polymerase 7888
Replication site DNA virus 333
Replication site DNA virus SV40 355
Repressor Cro protein 6177
Repressor lactose conformation inducer 3572
Repressor lactose inducer DNA 3565
Repressor lactose spectra nitrophenol 3153
Resistance rat warfarin 6260
Resorption alanine kidney 583
Resorption proline kidney 591
Respiration adipocyte insulin 2226
Respiration hydroxybutyrate lipid formation development 5222
Respiration thymocyte glucose transport 4876
Respiratory control cytochrome oxidase liposome 6981
Respiratory enzyme phospholipid interaction 3194
Restriction endonuclease detn 3176
Restriction endonuclease DNA sequence recognition 7273
Restriction endonuclease Haemophilus DNA cleavage 7300
Reticulocyte initiation factor E4 E6 5798
Reticulocyte protein biosynthesis enzyme 3738
Reticulocyte ribosome release factor 4514
Reticulocyte translation RNA methylguanosine 1181
Retina cell adhesion protein 6841
Retina dolichyl phosphate mannose hydrogenation 5619
Retina eye retinol transport 5216
Retina polyprenyl phosphate mannosyltransferase specificity 5622
Retina retinal binding protein 3267
Retinal binding protein retina 3267
Retinoic acid transport eye retina 5216
Retinoid phosphorylated reaction GDP mannose 2575
Retinol transport eye retina 5216
Reverse transcriptase active site 1425
Reverse transcriptase binding protein virus 5883
Reverse transcriptase interaction RNase 7783
Reverse transcriptase leukemia virus 11
Reverse transcriptase sarcoma virus 2281
Reverse transcriptase virus binding RNA 6878
Reye syndrome ornithine carbamoyltransferase 6464
Rhesus lipoprotein apoAII assocn 6745
Rhesus Monkey plasma lipoproteins correction of page 6745 9082
Rhodopseudomonas aminolevulinate synthase structure 2278
Rhodopseudomonas ribulose bisphosphate carboxylase 943
Rhodopsin structure eye disk membrane 8092
Rhodopsin structure light 8101
Rhodospirillum chromatophore coupling factor ATPase 8747
Rhodospirillum ferredoxin chromatophore 7453
Rhodospirillum succinate dehydrogenase 7461
Ribonucleoprotein formation ribosome protein 721
Ribonucleoprotein HeLa cell RNA correction of page 5888 2161
Ribonucleoprotein liver 7307
Ribonucleoprotein messenger protein assocn 3525
Ribonucleoprotein polyadenylate nucleus neoplasm 1156
Ribonucleoside diphosphate reductase purifn detn 6132
Ribonucleotide polymerase Histoplasma 4337
Ribonucleotide reductase radical Escherichia 536
Ribose phosphate pyrophosphokinase assocn 3919
Ribosomal initiation complexes Escherichia coli correction of page 1739 9081
Ribosomal protein gene Escherichia Charon phage 7344
Ribosomal protein gene Escherichia lambda phage 7323
Ribosomal protein gene mapping Escherichia 7365
Ribosomal RNA animal cell purine 5350

Ribosomal RNA Dictyostelium 3952
Ribosomal RNA formation Eschericia 3064
Ribosomal RNA formation histidinol 5251
Ribosomal RNA maturation endonuclease 1350
Ribosome dissocn equil polyamine 652
Ribosome formylmethionyl transfer RNA 3941
Ribosome messenger RNA reovirus 7842
Ribosome messenger RNA site reovirus 6895
Ribosome protein accessibility polyribosome 5547
Ribosome protein gene Escherichia 7337
Ribosome protein gene promoter Escherichia 7355
Ribosome protein liver 3961 9071
Ribosome protein nomenclature evolution 9065
Ribosome protein phosphorylation ethionine 6217
Ribosome protein ribonucleoprotein formation 721
Ribosome release factor binding RNA 4435
Ribosome release factor reticulocyte 4514
Ribosome RNA binding chloride 4007
Ribosome RNA gene map Saccharomyces 8118
Ribosome RNA gene map sequence 8126
Ribosome RNA gene yeast organization 6562
Ribosome RNA Thermus sequence 4256
Ribosome transfer RNA androgen 5692
Ribosome virus fibroblast protein formation 7640
Ribosyltransferase ADP arginine choleragen mechanism 2455
Ribulose bisphosphate carboxylase oxygenase inhibition 8344
Ribulose bisphosphate carboxylase Rhodopseudomonas 943
Rifampicin resistance RNA polymerase subunit 9024
RNA
See also Messenger RNA, Nucleic acids, Ribosomal RNA, and Transfer RNA
RNA adenovirus terminal sequence 9032 9043
RNA bacteriophage Qbeta S1 site 5177
RNA binding reverse transcriptase virus 6878
RNA deoxynucleotide kinase formation 2304
RNA DNA avian sarcoma virus correction of page 6878, 8773
RNA DNA chromatin 2630
RNA double stranded nuclease 4092
RNA embryo heart differentiation 6521
RNA Escherichia membrane phospholipid 4487
RNA fibroblast prostaglandin formation 1408
RNA formation Achlya antheridiol 8812
RNA formation Cro protein 6177
RNA formation DNA cellulose deriv 5615
RNA formation liver aflatoxin B1 3245
RNA formation termination factor 1375 1381
RNA formylmethionyl protein formation mitochondria 2519
RNA heterogenous nuclear protein 7307
RNA isoaccepting transfer collagen formation 8023
RNA ligase bacteriophage T4 1732
RNA ligase phage T4 3987
RNA messenger amylase pancreas 5522
RNA messenger blastokinin uterus 5412
RNA messenger conalbumin oviduct estrogen 2060
RNA messenger cyclic AMP 655
RNA messenger fetoprotein 8469
RNA messenger globin affinity chromatog 457
RNA messenger globin cloning DNA 2209
RNA messenger globin DNA 1908
RNA messenger globin sequence 3446 5019 5032 5040
RNA messenger globin structure 1758 1764
RNA messenger globin translation 2684 2742
RNA messenger glutamine synthetase 3028
RNA messenger histone 173
RNA messenger histone HeLa 166
RNA messenger immunoglobulin translation 2592
RNA messenger phosphoenolpyruvate carboxykinase translation 8398
RNA messenger prepn globin 2182
RNA messenger protamine trout 1386
RNA messenger protein formation factor 392
RNA messenger purifn immunosorption 6666
RNA messenger reovirus ribosome 7842
RNA messenger reovirus ribosome site 6895
RNA messenger translation albumin 1272
RNA messenger translation methylguanosine 1181
RNA messenger translation virus 8804
RNA messenger translation vitellogenin 8320
RNA messenger virus SV40 368
RNA messenger vitellogenin estradiol 8310
RNA messenger vitellogenin estrogen 7913 8428
RNA messenger vitellogenin Xenopus 5244
RNA pancreas development embryo 7391
RNA polyadenylate protein assocn 3525
RNA polymerase adenovirus transcription 8753
RNA polymerase assocn RNase H 8848
RNA polymerase Caulobacter 4157
RNA polymerase Cibacron blue F3GA 5724
RNA polymerase DNA heparin 5403
RNA polymerase erythroid cell 273
RNA polymerase II phosphorylation dephosphorylation 6750
RNA polymerase III adenovirus 8762
RNA polymerase mutation sporulation Bacillus 268
RNA polymerase phage T3 6485
RNA polymerase phosphorylation 3082
RNA polymerase priming oligoribonucleotide 8498
RNA polymerase subunit rifampicin resistance 9024
RNA polymerase uterus estradiol 1092 4607
RNA polymerase vaccinia virus 6930
RNA promoter adenovirus sequence 9047
RNA ribosomal animal cell purine 5350
RNA ribosomal Dictyostelium 3952
RNA ribosomal formation Eschericia 3064
RNA ribosomal formation histidinol 5251
RNA ribosomal maturation endonuclease 1350
RNA ribosome binding chloride 4007
RNA ribosome gene map Saccharomyces 8118
RNA ribosome gene map sequence 8126
RNA ribosome gene yeast organization 6562
RNA ribosome release factor binding 4435
RNA ribosome Thermus sequence 4256
RNA Saccharomyces virus like particle 9010
RNA sequence analysis enzyme 6885
RNA transfer adenine methyltransferase liver 4790
RNA transfer aminoacyl synthetase 1002
RNA transfer aminoacylation anticodon 6403
RNA transfer androgen prostate 5692
RNA transfer arginine bacteriophage T4 8254
RNA transfer arginine nucleotide sequence 8245
RNA transfer cytidine deamination 2566
RNA transfer Dictyostelium development 694
RNA transfer fluorine NMR 4418
RNA transfer formylmethionine aminoacylation 814
RNA transfer formylmethionyl ribosome 3941
RNA transfer glycine collagen formation 2447
RNA transfer methionyl binding protein 3843
RNA transfer phage T even 4935
RNA transfer precursor Escherichia 2311
RNA transfer pseudouridine Escherichia 6310
RNA transfer reaction bisulfite 2551
RNA transfer synthetase aminoacyl mechanism 2698
RNA transfer synthetase yeast 878
RNA transfer valine anticodon 471
RNA transfer valine Saccharomyces 2560
RNA translation inhibitor leukemia 2106
RNA translation methylguanosine initiation factor 8489
RNA tumor virus structural protein 7818
RNA U1 sequence hepatoma 3814
RNA vaccinia virus 866 872
RNase brain action pattern 6416
RNase complementation barnase peptide 3252
RNase double strand specificity thymus 483
RNase double stranded RNA 4092
RNase Escherichia 8950
RNase H assocn RNA polymerase 8848
RNase heterosaccharide conformation stability 8358
RNase H1 DNA binding 8934
RNase II Escherichia 8945
RNase inhibitor placenta 5904
RNase interaction reverse transcriptase 7783
RNase mechanism lysine 663
RNase S active site histidine 6991
RNase S crystal structure 5599
Rubredoxin immobilization 2390
Saccharide lipid ovalbumin formation 1007
Saccharides
See also Carbohydrates, Monosaccharides, Polysaccharides, Pyranoses, and Sugars
Saccharomyces adenosylmethionine decarboxylase pyruvoyl residue 8212
Saccharomyces amino acid methylamine ammonia transport 3599
Saccharomyces galactokinase 1162
Saccharomyces galactose metab glucose 6399
Saccharomyces invertase structure subunit 4409
Saccharomyces mitochondria ATPase inhibitor 671
Saccharomyces phospholipid inositolless death 8684
Saccharomyces ribosome RNA gene 6562 8126
Saccharomyces ribosome RNA gene map 8118
Saccharomyces RNA virus like particle 9010
Saccharomyces transcription protein formation 1344
Saccharomyces valine transfer RNA 2560
Salivary fucosylgalactose acetylgalactosaminyltransferase 2338
Salmo protamine gene 8062
Salmon lactate dehydrogenase isoenzyme regulation 5708
Salmonella ketodeoxyoctonate phosphate synthetase gene 4895
Salmonella lipid A precursor 4904
Salmonella membrane phospholipid translocation 7405
Salmonella methyltransferase glutamyl protein 2793
Salmonella periplasmic space 7850
Salmonella phospholipid vesicle 7398
Salmonella phosphoprotein phosphatase 4416
Salmonella phosphoribosylpyrophosphate synthetase 8504
Salmonella sugar transport membrane mutant 7862
Sarcoma virus DNA polymerase 2281 2290
Sarcoma virus fibroblast collagen 8863
Sarcoma virus lipid fibroblast 6190
Sarcoplasmic reticulum ATPase 3044
Sarcoplasmic reticulum ATPase development 318
Sarcoplasmic reticulum ATPase mercapto 5262
Sarcoplasmic reticulum calcium permeability 1950
Sarcoplasmic reticulum calcium transport 994 1938 4210
Sarcoplasmic reticulum calcium transport temp 8567
Sarcoplasmic reticulum methylene ATP 3262
Sarcoplasmic reticulum muscle relaxation 1620
Sarcoplasmic reticulum protein aminophospholipid localization 8446
Scattering
See also Light scattering
Schiff reaction Hb sickling 8542
Schizophyllum protease 8435
Schizosaccharomyces mitochondria gene phosphorylation 5716
Schizosaccharomyces potassium transport Dio9 4577
Scorpion toxin activation sodium ionophor 8669
Scorpion toxin binding sodium ionophore 8660
Sea urchin egg concanavalin A 1286
Secondary structure
See also Conformations
Selenoprotein glycine reductase Clostridium 5337
Sequence SV40 virus DNA RNA 340
Serine aspartokinase homoserine dehydrogenase 5332
Serine brain phospholipid formation 260
Serine phosphoglycerate dehydrogenase 1527
Serum albumin folding 4521
Serum albumin immunol polyethylene glycol 3578
Serum alpha1 microglobulin 8048

Serum angiotensin converting enzyme 1316
Serum component binding TSH 7967
Serum DNA binding protein 1881
Serum elastase pancreas detn 61
Serum galactosyltransferase cancer 1807
Serum lipoprotein centrifugation 1728
Serum opsin glycoprotein 7156
Serum prealbumin 5107
Sheep LH subunit dissocn reassocn 5280
Sialate blood coagulation factor VIII 5538
Sialate glycoprotein membrane labeling 5888
Sialic acid calcium binding 4533
Sialidase brain synaptic membrane 2412
Sialo group agglutinin galactose liver 8624
Sialoglycolipid synaptic membrane sialidase 2412
Sialoglycoprotein radiolabel 5888
Sialoglycoprotein synaptic membrane sialidase 2412
Sialyltransferase colostrum affinity chromatog. 2356
Sialyltransferase galactoside colostrum 2363
Sialyltransferase sponge aggregation factor 3836
Sickle Hb polymn 3414
Sickling Hb carbonyl compd oxygen 8542
Simian virus fibroblast protein formation 7640
Sindbis virus glycoprotein fibroblast 2621
Singlet oxygen formation myeloperoxidase 4803
Singlet oxygen NADPH photooxidn 8554
Singlet oxygen oxidn liposome erythrocyte 6721
Sipunculan worm myohemerythrin structure 3012
Skin fibroblast hydrolase 825
Skin glycosaminoglycan 6861
Skin lysyl oxidase aneurysm 939
Skin protein newborn tonofilament 2127
Skin stratum corneum glutamyllysine 1837
Slime mold cyclic AMP pseudoplasmodia 4073
Snake venom phosphodiesterase endonuclease activity 8652
Sodium alanine transport kidney 583
Sodium amino acid transport 1990
Sodium calcium transport heart veratridine 6112
Sodium erythrocyte permeability protein 6764
Sodium ionophore neurotoxin activation 8669
Sodium ionophore scorpion toxin binding 8660
Sodium potassium transport ATPase liposome 5630
Sodium proline resorption kidney 591
Solanum vitamin D3 deriv 2580
Soly cyclic AMP 864
Soybean trypsin inhibitor crystal structure 1099
Spectra
See also NMR, Circular dichroism, Difference, Electronic, EPR, Fluorescence, IR, Luminescence, Mass spectra, NMR, Phosphorescence, Raman
Spectra heme compd pressure 4098
Spectra tryptophan cytochrome c 6577
Spectrin assocn erythrocyte membrane 2753
Spectrin crosslinking erythrocyte membrane calcium 6617
Sperm mitochondria pyruvate metab 1309
Sperm motility adenylate energy charge 8088
Sperm proacrosin purifn activation 1888
Sperm pyruvate metab epididymis 1303
Spermidine hydrogen peroxide adipocyte 560
Spermidine ribosome dissocn equil 652
Spermine hydrogen peroxide adipocyte 560
Sphingomyelin lecithin phase diagram 4449
Sphingomyelinase brain 3805
Spin form cytochrome c ESR 574
Spinach ferredoxin nitrite reductase 896
Spirochaeta phosphoenolpyruvate mannitol phosphotransferase 8890
Spleen acid phosphatase leukemia 3371
Spleen Gaucher glucocerebrosidase activator 563
Sponge sialyltransferase aggregation factor 3836
Sporulation Bacillus RNA polymerase mutation 268
Squalene epoxidase activator protein 5381
Squalene formation liver 4667
Squid chondroitin sulfate E structure 4570
Staphylococcal nuclease hybridization conformation 125
Staphylococcus nuclease precursor 6544
Staphylococcus toxin conformation stability 6831
Starvation glucagon liver membrane 7434
Statherin peptide sequence 1689
Stereochem dTDP glucose dehydratase 8113
Steroid adrenal cholesterol lipoprotein receptor 4861
Steroid receptor activation inhibitor 858
Steroidogenesis adenosine adenyl cyclase 687
Sterol formation cell DNA 409
Sterol formation inhibition cholestene 8975
Sterol formation liver 4667
Sterol formation organ lipoprotein 3652
Sterol hdyroxymethylglutaryl CoA reductase liver 1057
Sterol leukocyte hypercholesterolemia 644
Sterol oxidase liver 5852
Stomach glucagon property 1847
Stomach mucosa metab acid secretion 8572
Streptococcus citrate lyase prosthetic 6061
Streptococcus transport vitamin B6 835
Streptokinase plasminogen activation 492
Streptokinase plasminogen activator 1141
Streptomyces acetylated methylmannose polysaccharide 2470
Streptomyces arginine metab azomycin 5267
Streptomyces endoacetylglucosaminidase specificity 6687
Stress cholesterol formation organ 3646
Structure activity neurotensin receptor 7180
Structure copper glycyl alaninato mol 8840
Structure invertase Saccharomyces subunit 4409
Structure lactate dehydrogenase dogfish 1799
Structure NADPH cytochrome P450 437
Structure ovotransferrin fractionation 5437
Structure transcarboxylase electron microscopy 1500
Structure transcarboxylase subunit 1490
Submaxillary gland mucin purifn structure 3791
Subtilisin structure charge relay system 8875
Subunit aspartate transcarbamylase conformation 2881
Subunit ATPase Rhodospirillum chromatophore 8747
Subunit HLA antigen disulfide structure 4694
Subunit interaction malate dehydrogenase 755
Subunit luciferase biosynthesis Beneckea 803
Subunit phosphofructokinase erythrocyte structure 3515
Subunit protein kinase animal tissue 1441
Subunit RNA polymerase rifampicin resistance 9024
Subunit sepn tryptophan synthase Escherichia 6594
Succinate aspartate transcarbamylase binding 2262
Succinate dehydrogenase mitochondria membrane 1582
Succinate dehydrogenase purifn 6963
Succinate dehydrogenase Rhodospirillum 7461
Succinyl CoA ketoacid coenzyme A correction of page 1708 1127
Succinyl CoA synthetase manganese 1957
Sucrase intestine metaplasia 3277
Sugar phosphotransferase phosphoenolpyruvate bacteria 8899
Sugar polyprenyl phosphate hydrogenation catalyst 5619
Sugar transphosphorylation Escherichia 8908
Sugar transport Salmonella membrane mutant 7862
Sulfate manganese glycogen synthase 3240
Sulfation thyroid hormone hepatocarcinoma 4458
Sulfhydryl dihydrofolate reductase Escherichia 6871
Sulfhydryl malate dehydrogenase dissocn 6038
Sulfhydryl modification pyridine nucleotide transhydrogenase 4552
Sulfhydryl renin mol form 7733
Sulfhydryl thymidylate synthetase active site 6139
Sulfhydrylase acetylserine kinetics mechanism 3459
Sulfhydrylase plant homocysteine formation 3436
Sulfite oxidase heme molybdenum 2017
Sulfite oxidase reconstitution molybdate 4988
Sulfite oxidase reconstitution molybdenum cofactor 4994
Sulfotransferase estrone inhibition adrenal 7214
Sulfur iron protein structure 7802
Sulfur protein formation tobacco 1858
Sulfurylase ATP tobacco nitrogen 1858
Superhelix density detn DNA 291
Superoxide dismutase copper tyrosine complex 5061
Superoxide dismutase lung neonate oxygen 3509
Superoxide dismutase paraquat Escherichia 7667
Superoxide dismutase Porphyridium 6421
Superoxide indolamine dioxygenase mechanism 3548
Superoxide indoleamine dioxygenase complex 4637
Superoxide indoleamine dioxygenase intestine 2774
Superoxide oxidn liposome Hb erythrocyte 6721
Superoxide oxyhemoglobin photolysis 1226
Surface sheath Dictyostelium development 820
SV40 virus DNA defective hybrid 5115
SV40 virus DNA RNA sequence 340
SV40 virus DNA sequence 333 355 368
SV40 virus monkey DNA 5124
Synapse glycoprotein brain 786
Synaptic membrane brain sialidase 2412
Synaptosome membrane protein 3862
Synaptosome protein kinase brain 5164
Synaptosome protein phosphorylation calcium transport 2764
Synthase aminolevulinate liver hormone 2428
Synthase aminolevulinate Rhodopseudomonas structure 2278
Synthase citrate interaction hydroxycitrate isomer 7583
Synthase glucose bisphosphate regulation 4262
Synthase glutamate amination ketoglutarate 3501
Synthase glycogen inhibition palmityl CoA 7812
Synthase glycogen manganese sulfate 3240
Synthase glycogen protein kinase 7517
Synthase guanylate azide activation 4384
Synthase hydroxymethylglutaryl CoA kinetics 1414
Synthase inositol phosphate mechanism 5672 7221
Synthase isopropylmalate CoA binding 4085
Synthase porphobilinogen active site mercapto 8964
Synthase pyruvate lyase Clostridium 2657
Synthase tryptophan Escherichia mutant 4527
Synthase tryptophan subunit sepn Escherichia 6594
Synthetase acetyl CoA Entamoeba 726
Synthetase acetyl CoA yeast 504
Synthetase acetylglutamate Escherichia 3295
Synthetase adenosylmethionine yeast 4506
Synthetase aminoacyl transfer RNA mechanism 2698
Synthetase aminoacyl tRNA biol transport 7427
Synthetase aminoacyl tRNA mechanism 1002
Synthetase aminoacyl tRNA yeast 878
Synthetase argininosuccinate kinetics 5287
Synthetase carbamyl phosphate adenosine polyphosphate 3558
Synthetase carbamyl phosphate complex 6379
Synthetase chitin Mucor chitosome 3338
Synthetase choloyl CoA fatty acid 1167
Synthetase dihydroneopterin triphosphate liver 5750
Synthetase fatty acid liver 4242
Synthetase fatty acid liver embryo 7015
Synthetase fatty acid mechanism Mycobacterium 5745
Synthetase fatty acid mechanism polysaccharide 5740
Synthetase fatty acid Mycobacterium 5735
Synthetase formyltetrahydrofolate complex liver 1117
Synthetase glutamine kinetics mechanism 6046
Synthetase glutamine messenger RNA 3028
Synthetase glutamine Neurospora 8724
Synthetase glutamylcysteine aminooxochloropentanoate 2606

Synthetase glutamylcysteine liver 2599
Synthetase GMP glutamine site 5431
Synthetase ketodeoxyoctonate phosphate gene Salmonella 4895
Synthetase methionyl transfer RNA 6403
Synthetase phosphoenolpyruvate Escherichia property 3121
Synthetase phosphoribosylpyrophosphate Salmonella 8504
Synthetase phosphoribosylpyrophosphate subunit 3911
Synthetase phosphoribosylpyrophosphate subunit assocn 3919
Synthetase phytoene prelycopersene pyrophosphate tomato 1523
Synthetase polyadenylate diphosphoribose nucleus liver 7000
Synthetase prostaglandin endoperoxide induction benzopyrene 6591
Synthetase pseudouridine transfer RNA 6310
Synthetase succinyl CoA manganese 1957
Synthetase thromboxane blood platelet 5871
Synthetase thymidylate leukemia 7697
Synthetase thymidylate sulfhydryl active site 6139
Synthetase transfer RNA Dictyostelium 694
Synthetase valyl tRNA modification bacteriophage 6646
Synthetase valyl tRNA modification factor 6640
T even bacteriophage zinc baseplate 7715
Tartrate resistant phosphatase spleen leukemia 3371
Tautomerization histidine myoglobin NMR 4968
Teichuronic formation Micrococcus cell wall 3466
Teichuronic intermediate Micrococcus cell wall 3460
Temp desaturase Bacillus 3660
Temp sarcoplasmic reticulum calcium transport 8567
Tendon procollagen metab 8391
Terminal cisterna muscle 5565
Testis cyclic nucleotide phosphodiesterase protein 8415
Testis FSH receptor 4166
Testis LH receptor 9002
Testis LH subunit receptor 522
Testis protein kinase inhibitor 6322
Testis steroidogenesis adenosine 687
Testosterone LH receptor testis 9002
Tetanus toxin ganglioside binding 194
Tetanus toxin structure 187
Tetanus toxin thyroid membrane interaction 4049
Tetrahymena carbon dioxide leucine lipid 3402
Tetrahymena cytosol ATPase 7548
Tetrahymena glycolysis model 1589
Thermodn alk phosphatase conformation 7042
Thermodn electrochem proton gradient mitochondria 8459
Thermodn electron transport 8455
Thermodn troponin C calcium binding 2452
Thermolysin active site carboxypeptidase A 7704
Thermus alk phosphatase phosphodiesterase 3399
Thermus ribosome RNA sequence 4256
Thioether linkage cytochrome c552 4767
Thiogalactoside transport energy coupling 8582
Thiol enzyme photolabel reagent 4293
Thiol protein disulfide oxidoreductase 7163
Thionein I sequence liver 8217
Thioredoxin reductase liver thymus 4600
Thioredoxin reductase purifn 6367
Threonine aspartokinase homoserine dehydrogenase 5332
Threonine deaminase subunit structure 2206
Thrombin blood platelet interaction structure 7118
Thrombin inhibition affinity labeling 8027
Thrombin prepn property 3587
Thrombin prethrombin peptide sequence 4942
Thromboxane B2 metab urine 7415
Thromboxane synthetase blood platelet 5871
Thymic factor circulating blood 8040
Thymic factor circulating peptide sequence 8045
Thymidylate kinase leukemia 5686
Thymidylate synthetase leukemia 7697
Thymidylate synthetase sulfhydryl active site 6139
Thymine hydroxymethylcytosine phage T4 DNA 3019
Thymocyte energy metab adenosine 5324
Thymocyte glucocorticoid receptor reactivation 7579
Thymocyte glucose transport 3533
Thymocyte glucose transport respiration 4876
Thymus DNase V 116
Thymus RNase double strand specificity 483
Thymus thioredoxin reductase 4600
Thyroglobulin carbohydrate glucuronate 5424
Thyroglobulin tyrosine iodination 3281
Thyroid heart receptor muscarinic cholinergic 7444
Thyroid hormone metab hepatocarcinoma 4458
Thyroid membrane characterization 3074
Thyroid membrane tetanus toxin interaction 4049
Thyroid myosin actin 8285
Thyroid peroxidase concanavalin agarose 1264
Thyroid UDP galactose epimerase 2082
Thyrotoxicosis myosin ATPase heart 6925
Thyroxine adrenergic receptor heart 2787
Thyroxine binding globulin conformation 8719
Thyroxine binding globulin plasma 8713
Thyroxine metab hepatocarcinoma 4458
Thyroxine prealbumin binding site 6076
Tissue acylcarnitine animal 7930
Tissue factor blood X activation 8481
Tobacco ATP sulfurylase nitrogen 1858
Tobacco hornworm arginine kinase 3679
Tonofilament protein skin newborn 2127
Toxin Cerebratulus disulfide bond 3328
Toxin cholera adenylate cyclase 3766
Toxin cholera erythrocyte catecholamine 7132
Toxin cholera liposome permeability 797
Toxin cholera peptide sequence 7249 7257
Toxin diphtheria lactogen conjugate 1515
Toxin placental lactogen conjugate prepn 1505
Toxin scorpion binding sodium ionophore 8660
Toxin Staphylococcus conformation stability 6831
Toxin structure tetanus 187
Toxin tetanus ganglioside binding 194
Toxin tetanus thyroid membrane interaction 4049
Transacylase specificity Mycobacterium 5735
Transaminase amino acid inhibition chloroalanine 3170
Transaminase amino acid vinylglycine 1571
Transaminase aminovalerate induction Pseudomonas 7987
Transaminase asparagine substrate specificity 2032
Transamination dihydroxyphenylalanine decarboxylase 7168
Transcarbamoylase aspartate effector binding site 8136
Transcarbamylase aspartate complex 6379
Transcarbamylase aspartate conformation subunit 2881
Transcarbamylase aspartate mechanism arginine 2873
Transcarbamylase ornithine liver disorder 6464
Transcarbamylase ornithine pyridoxal phosphate 4276
Transcarbamylase ornithine regulation orotate Escherichia 5928
Transcarboxylase structure electron microscopy 1500
Transcarboxylase subunit structure 1490
Transcriptase reverse binding protein virus 5883
Transcriptase reverse interaction RNase 7783
Transcriptase reverse sarcoma virus 2281
Transcriptase reverse virus binding RNA 6878
Transcription adenovirus RNA polymerase 8753
Transcription chromatin gene expression 2396
Transcription chromatin sepn 2630
Transcription Saccharomyces protein formation 1344
Transfer RNA adenine methyltransferase liver 4790
Transfer RNA aminoacyl synthetase 1002
Transfer RNA aminoacylation anticodon 6403
Transfer RNA androgen prostate 5692
Transfer RNA arginine bacteriophage T4 8254
Transfer RNA arginine nucleotide sequence 8245
Transfer RNA cytidine deamination 2566
Transfer RNA Dictyostelium development 694
Transfer RNA fluorine NMR 4418
Transfer RNA formylmethionine aminoacylation 814
Transfer RNA formylmethionyl ribosome 3941
Transfer RNA glycine collagen formation 2447
Transfer RNA isoaccepting collagen formation 8023
Transfer RNA methionyl binding protein 3843
Transfer RNA nucleotidyltransferase Escherichia 5584
Transfer RNA nucleotidyltransferase mechanism 5589
Transfer RNA phage T even 4935
Transfer RNA precursor Escherichia 2311
Transfer RNA pseudouridine Escherichia 6310
Transfer RNA reaction bisulfite 2551
Transfer RNA synthetase aminoacyl mechanism 2698
Transfer RNA synthetase yeast 878
Transfer RNA valine anticodon 471
Transfer RNA valine Saccharomyces 2560
Transferrin copper anion ESR 6090
Transferrin iron chelate anion 8108
Transferrin vanadyl anion binding 5996
Transformed fibroblast permeability ATP 4584
Transformed fibroblast protein degrdn 5310
Transglutaminase crosslinking erythrocyte membrane calcium 6617
Transglutaminase mechanism amine binding 3752
Transhydrogenase pyridine nucleotide sulfhydryl modification 4552
Translation amylase messenger RNA 5522
Translation globin messenger RNA 2742
Translation immunoglobulin messenger RNA 2592
Translation messenger RNA albumin 1272
Translation messenger RNA globin 2684
Translation messenger RNA methylguanosine 1181
Translation messenger RNA virus 8804
Translation RNA inhibitor leukemia 2106
Translation RNA methylguanosine initiation factor 8489
Translocation phospholipid Salmonella membrane 7405
Transpeptidase glutamyl active site 6792
Transpeptidase glutamyl kidney 6042
Transphosphatidylase Pseudomonas 4395
Transphosphorylation sugar Escherichia 8908
Transport adenine nucleotide mitochondria inhibition 6711
Transport alanine kidney 583
Transport amino acid animal cell 2675
Transport amino acid cell growth 2680
Transport amino acid derepression hepatoma 2900
Transport amino acid energy Escherichia 4056
Transport amino acid fibroblast 1990
Transport amino acid liver 148
Transport amino acid lymphocyte 7101
Transport aminoacyl tRNA synthetase 7427
Transport aminoisobutyrate fatty acid membrane 6624
Transport anion erythrocyte reconstitution 2419
Transport aspartate glutamate Escherichia 9055
Transport ATP pyruvate calcium mitochondria 5372
Transport bicarbonate erythrocyte 3881
Transport calcium ATPase heart 3315
Transport calcium mitochondria liver 4539
Transport calcium protein phosphorylation synaptosome 2764
Transport calcium sarcoplasmic reticulum 994 4210
Transport calcium sarcoplasmic reticulum temp 8567
Transport cation proton mitochondria contraction 7932
Transport cyclic nucleotide animal 2010
Transport cytidine uridine Escherichia 2492
Transport deoxyglucose brain glucose phosphatase 7035

Transport galactoside Escherichia membrane 7662
Transport glucose adipocyte 181
Transport glucose adipose membrane 8341
Transport glucose erythrocyte cytochalasin 5456
Transport glucose phosphate microsome 8512
Transport glucose protein erythrocyte 7384
Transport glucose system adipose 6554
Transport glucose thymocyte 3533
Transport glucose thymocyte respiration 4876
Transport hepatoma cytochalasin Persantin 4185
Transport hexose cytochalasin hepatoma 4191
Transport hydrogen phosphorylation ATPase 2956
Transport hydroxytryptamine platelet membrane 2170
Transport monosaccharide erythrocyte membrane 3131
Transport mutant Escherichia energy coupling 8582
Transport potassium Schizosaccharomyces Dio9 4577
Transport proton ATPase liposome 6125
Transport proton photophosphorylation coupling factor 8007
Transport retinol eye retina 5216
Transport sodium calcium heart veratridine 6112
Transport sodium potassium ATPase liposome 5630
Transport sugar Salmonella membrane mutant 7862
Transport uracil phosphoribosyltransferase Escherichia 7620
Transport vitamin B6 bacteria 835
Transverse tubule muscle 5565
Triamcinolone receptor activation inhibitor 858
Tridecanone monooxygenase Pseudomonas 8561
Triglyceride formation liver fatty acid 2822
Triiodothyronine adrenergic receptor heart 2787
Triiodothyronine aminolevulinate synthase liver 2428
Triiodothyronine metab hepatocarcinoma 4458
Triiodothyronine receptor liver nucleus 6799
Triiodothyronine receptor pituitary growth hormone 6052
Triiodothyronine synthesis degrdn renal cortical correction of page 7834 2458
Trimethoprim dihydrofolate reductase plasmid 2319
Triolein cholesteryl ester phase NMR 8071
Triphosphatase nucleoside avian myeloblastosis virus 6700
Triphosphatase polynucleotide vaccinia virus 3092
Triton prostaglandin binding protein 3689
Tropomyosin actinin interaction 5529
Tropomyosin conformation 4557
Tropomyosin muscle interaction Acanthamoeba actin 3374
Troponin C calcium binding thermodn 2452
Troponin C peptide sequence 6356
Troponin C phosphodiesterase activator 2437
Troponin phosphorylation protein kinase 851
Troponin T peptide sequence 971 978 983
Trout protamine gene 8062
Trout protamine messenger RNA 1386
Trypsin analysis peptide 6510
Trypsin inhibitor conformation denaturation 5239
Trypsin inhibitor corn 8105
Trypsin inhibitor crystal structure 1099
Trypsin macroglobulin complex cystic fibrosis 7923
Trypsin Mycobacterium ATPase 8229
Trypsin phosphodiesterase modulator protein 7440
Tryptophan biosynthesis Euglena enzyme 235
Tryptophan cleavage protein chlorosuccinimide urea 4976
Tryptophan cytochrome c yeast 6577
Tryptophan lysozyme NMR 1795
Tryptophan oxidizing enzyme Pseudomonas 2648
Tryptophan oxygenase liver glucocorticoid development 4354
Tryptophan peptide oxidn enzyme 4413
Tryptophan peptide reaction DNA 244
Tryptophan synthase Escherichia mutant 4527
Tryptophan synthase subunit sepn Escherichia 6594
Tryptophanase activation cation 1852
Tryptophanase arginine Escherichia 7598
TSH binding serum component 7967
Tubulin assembly dimethyl sulfoxide 6222
Tubulin assembly zinc 6918
Tubulin Chlamydomonas immunoassay 383
Tubulin colchicine podophyllotoxin binding 1134
Tubulin dimer structure 7006
Tubulin enzymic action 2101
Tubulin formation brain development 1819
Tubulin GTP microtubule assembly 4440
Tuna cytochrome c crystal structure 759 776
Tuna cytochrome c structure 4619
Tunicamycin fibroblast bone collagen 955
Tunicamycin glycolipid formation plant 7431
Tunicamycin glycoprotein virus 9018
Tunicamycin immunoglobulin secretion plasma cell 4402
Turbidimetry ultracentrifugation lipoprotein 1728
Turkey fructose diphosphatase liver 7031
Turtle parvalbumin structure 2834
Tyrosine aminotransferase degrdn nucleus 7834
Tyrosine aminotransferase induction hormone 6783
Tyrosine aminotransferase metab pyridoxine 4958
Tyrosine copper complex microsome dealkylation 5061
Tyrosine cytochrome c 7743
Tyrosine ferredoxin NMR 2245
Tyrosine formation Escherichia 3392
Tyrosine hydroxylase adrenal 3160
Tyrosine hydroxylase nerve growth factor 5859
Tyrosine iodination thyroglobulin 3281
Tyrosine Pseudomonas pretyrosine 5839
T4 bacteriophage arginine transfer RNA 8254
UDP galactose acetylglucosamine galactosyltransferase mammary 7294
UDP galactose epimerase inhibition 2089
UDP galactose epimerase purifn 2082
UDP glucose dehydrogenase mechanism 1320
UDP glucose oligosaccharide formation Escherichia 6299
UDP glucose oligosaccharide formation fibroblast 1780
UDP glucuronate decarboxylase chondrocyte 6707
UDP glucuronate decarboxylase multiple form 8013
UDP glucuronosyltransferase genetic regulation 2827
UDP glucuronosyltransferase liver microsome 1336
UDP glucuronyltransferase membrane bound estrone 7534
Ultracentrifugation turbidimetry lipoprotein 1728
Undecaprenyl polyacetylglucosaminyl pyrophosphate Bacillus 4118
Uracil DNA glycosidase Escherichia 3286
Uracil transport phosphoribosyltransferase Escherichia 7620
Urea amidolyase Candida 1628
Urea chlorosuccinimide protein tryptophan cleavage 4976
Uridine cytidine transport Escherichia 2492
Uridylyltransferase galactose phosphate mechanism 5363
Urine alpha1 microglobulin 8048
Urine erythropoietin purifn 5558
Urine oligosaccharide pregnancy lactation 1014 1034
Urine oligosaccharides pregnancy lactation 1023
Urine thromboxane B2 metab 7415
Urocanase coenzyme NAD Pseudomonas 5701
Urokinase plasminogen plasmin 3945
Uteroglobin messenger RNA uterus 5412
Uterus blastokinin messenger RNA 5412
Uterus estrogen binding protein 1358
Uterus estrogen receptor estradiol 8856
Uterus glucose phosphate dehydrogenase metab 3709
Uterus microsome calcium prostaglandin 1576
Uterus nucleus estrogen receptor 6823 8206
Uterus RNA polymerase estradiol 1092 4607
UV endonuclease Micrococcus 6280
UV irradn endonuclease Micrococcus repair 6294
UV Spectra
See also Difference spectra, Electronic spectra, and Spectra
Vaccinia virus polyadenylate polymerase 6939
Vaccinia virus polynucleotide triphosphatase 3092
Vaccinia virus RNA 866 872
Vaccinia virus RNA polymerase 6930
Valine codon anticodon recognition 471
Valine transfer RNA Saccharomyces 2560
Valyl tRNA synthetase modification bacteriophage 6646
Valyl tRNA synthetase modification factor 6640
Vanadate ATPase inhibition 7421
Vanadyl transferrin anion binding 5996
Vasopressin PGE1 biosynthesis kidney 2069
Venom snake phosphodiesterase endonuclease activity 8652
Veratridine sodium calcium transport heart 6112
Vesicle phospholipid Salmonella 7398
Vesicular stomatitis virus protein formation 8804
Vesicular stomatitis virus RNA translation 1181
Vibrio toxin peptide sequence 7249
Vinylglycine amino acid transaminase 1571
Virus adeno DNA promoter sequence 9047
Virus adeno DNA replication 7940 7947
Virus adeno protein formation 4981
Virus adeno RNA sequence 9032 9043
Virus baseplate zinc 7715
Virus fd DNA replication 2534
Virus fibroblast disaccharide lipid formation 2918
Virus fibroblast transformation ATP 4584
Virus glycoprotein tunicamycin 9018
Virus leukemia reverse transcriptase 11
Virus like particle Saccharomyces RNA 9010
Virus myeloblastosis DNA polymerase 1425
Virus nucleoside triphosphatase 6700
Virus protein analysis 6510
Virus protein binding reverse transcriptase 5883
Virus reverse transcriptase binding RNA 6878
Virus RNA tumor structural protein 7818
Virus sarcoma DNA polymerase 2281 2290
Virus sarcoma fibroblast collagen 8863
Virus sarcoma lipid fibroblast 6190
Virus Sindbis glycoprotein fibroblast 2621
Virus SV40 DNA defective hybrid 5115
Virus SV40 DNA RNA sequence 340
Virus SV40 DNA sequence 333 355 368
Virus SV40 monkey DNA 5124
Virus transcription host polymerase 8753
Virus transformation fibroblast glycosaminoglycan 4777
Virus transformation fibroblast protein formation 7640
Virus transformed fibroblast microtubule assembly 794
Virus vaccinia polyadenylate polymerase 6939
Virus vaccinia polynucleotide triphosphatase 3092
Virus vaccinia RNA 866 872
Virus vaccinia RNA polymerase 6930
Virus vesicular stomatitis protein formation 8804
Virus vesicular stomatitis RNA translation 1181
Viscosity micro lecithin paraffin 7500
Visible absorption spectra
See also Difference spectra, Electronic spectra, and Spectra
Vitamin A prealbumin 5107
Vitamin B6 lactate bacteria 835
Vitamin D3 binding protein intestine 4501
Vitamin D3 deriv Solanum 2580
Vitamin D3 hydroxylation 1421
Vitamin E creatine kinase muscle brain 3117
Vitamin K carboxyglutamate formation preprothrombin 7738
Vitellogenin messenger RNA estradiol 8310
Vitellogenin messenger RNA estrogen 7913 8428
Vitellogenin messenger RNA translation 8320
Vitellogenin messenger RNA Xenopus 5244
Vitreoscilla cytochrome o 1834
Walker mammary carcinoma AMP proteins correction of page 6342 9081
Warfarin resistance rat 6260

Water phosphate exchange phosphorylation 2478
Wheat germ translation RNA methylguanosine 1181
Wheat germ UDP glucuronate decarboxylase 8013
Wheat histone classification 4068
Willebrand factor metab sialate 5538
Worm polychaete collagen fragment 8018
Xanthine oxidase oxidn liposome erythrocyte 6721
Xenopus egg meiosis progesterone 1712
Xenopus lipid protein yolk 7992
Xenopus phosphodiesterase egg 4662
Xenopus vitellogenin messenger RNA 5244
Xyloside chondroitin sulfate formation 6316
Xylulose bisphosphate enzyme inhibition 8344
Yeast acetyl CoA synthetase 504
Yeast adenosylmethionine synthetase 4506
Yeast aminoacyl tRNA synthetase 878
Yeast baker DNA polymerase 1873
Yeast cytochrome c tryptophan 6577
Yeast gene ribosome RNA organization 6562
Yeast heme mutant 2846
Yeast hexokinase mutant 4443
Yeast hexokinase regulation 5345
Yeast phosphofructokinase activation phosphate 6394
Yeast protein formation elongation factor 1471
Yeast proteinase B inhibitor 5316
Yeast ribosomal RNA cloning correction of page 6562 9082
Yolk lipid protein Xenopus 7992
Yolk sac pinocytosis glucagon 7151
Zinc alk phosphatase conformation 7042
Zinc baseplate T even bacteriophage 7715
Zinc chelate affinity chromatog 5934
Zinc concanavalin complex 3141
Zinc phosphate interaction alk phosphatase 7053
Zinc tubulin assembly 6918

THE JOURNAL OF BIOLOGICAL CHEMISTRY

FOUNDED BY CHRISTIAN A. HERTER AND SUSTAINED IN PART BY

THE CHRISTIAN A. HERTER MEMORIAL FUND

EDITED FOR THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, INC.

EDITORIAL BOARD/1977

Herbert Tabor, *Editor*, National Institutes of Health, Bethesda, Maryland 20014

Quentin H. Gibson, *Associate Editor*, Cornell University, Ithaca, New York 14850

C. H. W. Hirs, *Associate Editor*, Indiana University, Bloomington, Indiana 47401

Edward D. Korn, *Associate Editor*, National Institutes of Health, Bethesda, Maryland 20014

Edwin G. Krebs, *Associate Editor*, University of Washington, Seattle, Washington 98195 (On leave)

Alton Meister, *Associate Editor*, Cornell University Medical College, New York, N.Y. 10021

Robert T. Schimke, *Associate Editor*, Stanford University, Stanford, California 94035

Merton F. Utter, *Associate Editor*, Case Western Reserve University, Cleveland, Ohio 44106

Bruce Alberts
W. French Anderson
H. A. Barker
Robert Barker
J. Michael Bishop
Paul Bornstein
Paul D. Boyer
Harold J. Bright
Enrico Cabib
Don M. Carlson
C. Thomas Caskey
Michael J. Chamberlin
M. J. Coon
J. D. Corbin
E. H. Cordes
John E. Cronan, Jr.
Earl W. Davie
Robert J. DeLange
Stuart J. Edelstein
Sasha Englard
John H. Exton
Philip Feigelson
John H. Fessler
Harvey F. Fisher
J. E. Folk
Josef Fried
Carl Frieden
Martin Gellert
Alfred G. Gilman
Charles Gilvarg
A. N. Glazer
Alfred L. Goldberg
Robert Goldberger
Howard Goldfine
Jack Gorski
Antonio M. Gotto, Jr.
Donald J. Graves
Jerome Gross
Frank R. N. Gurd
Lowell P. Hager
Richard W. Hanson
Joel G. Hardman
Franklin M. Harold
Vincent C. Hascall, Jr.
Harry P. C. Hogenkamp
André T. Jagendorf
William B. Jakoby
Mary Ellen Jones
Robert L. Jungas
Henry Kamin
Walter Kauzmann
William N. Kelley
Jack F. Kirsch
Leonard D. Kohn
Stuart Kornfeld
John H. Law
Loretta Leive
Peter Lengyel
Seymour Lieberman
Stuart M. Linn
David H. MacLennan
Malcolm A. Martin
Bettie Sue Siler Masters
Brian J. McCarthy
Harden M. McConnell
Patrick A. McKee
Kivie Moldave
Howard E. Morgan
Hiroshi Nikaido
William H. Orme-Johnson
Peter L. Pedersen
Harvey S. Penefsky
John P. Perkins
Robert L. Post
Joanne M. Ravel
George H. Reed
Austen F. Riggs
Kenneth C. Robbins
Lennart Rodén
Irwin A. Rose
Michael G. Rossmann
Lawrence I. Rothfield
Harry Rudney
Henry Z. Sable
Paul R. Schimmel
G. J. Schroepfer, Jr.
Verne N. Schumaker
Aaron J. Shatkin
Eric M. Shooter
Paul A. Srere
Donald F. Steiner
Joan A. Steitz
Lubert Stryer
George Taborsky
Jordan J. N. Tang
Serge N. Timasheff
Oscar Touster
P. Roy Vagelos
Bert L. Vallee
Richard L. Veech
Sidney F. Velick
Peter H. von Hippel
Arthur Weissbach
Sherman Weissman
Robert D. Wells
Charles A. West
H. G. Williams-Ashman
Leon Wofsy
Finn Wold
Ira G. Wool
Ralph G. Yount

John T. Edsall, William H. Stein, *Advisors to the Board*

Leslie Hellerman, *Advisory Editor*

Russell J. Hilmoe, *Manager*, 9650 Rockville Pike, Bethesda, Maryland 20014

Volume 252, Numbers 21–24, Pages **7415–9118**

COPYRIGHT © 1977
BY
THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, INC.

PUBLISHED SEMIMONTHLY AT
WAVERLY PRESS, INC.
MOUNT ROYAL AND GUILFORD AVENUES
BALTIMORE, MARYLAND 21202, U.S.A.

BY THE AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, INC.

Contents of Volume 252

January 10, 1977

1 **Instructions to authors.**

11 **Purification and properties of Rauscher leukemia virus DNA polymerase and selective inhibition of mammalian viral reverse transcriptase by inorganic phosphate.**
Mukund J. Modak and Stuart L. Marcus

20 **Purification and properties of 3-keto-5-aminohexanoate cleavage enzyme from a lysine-fermenting *Clostridium*.**
Takamitsu Yorifuji, Ing-Ming Jeng, and H. A. Barker

32 **Subunit structure and chromophore composition of rhodophytan phycoerythrins. *Porphyridium cruentum* B-phycoerythrin and b-phycoerythrin.**
Alexander N. Glazer and Craig S. Hixson

43 **Purification of a Ca^{2+}-activatable cyclic nucleotide phosphodiesterase from bovine heart by specific interaction with its Ca^{2+}-dependent modulator protein.**
Honor C. Ho, Erwin Wirch, Frits C. Stevens, and Jerry H. Wang

51 **Binding of acetyl-CoA to chicken liver pyruvate carboxylase.**
William H. Frey, II and Merton F. Utter

57 **Lectin purification on affinity columns containing reductively aminated disaccharides.**
Reinhold J. Baues and Gary R. Gray.

61 **Pancreatic elastase in human serum. Determination by radioimmunoassay.**
Michael C. Geokas, James W. Brodrick, Janice H. Johnson, and Corey Largman

68 **Direct desaturation of eicosatrienoyl lecithin to arachidonoyl lecithin by rat liver microsomes.**
Elizabeth L. Pugh and Morris Kates

74 **Thermodynamic studies on subunit assembly in human hemoglobin. Self-association of oxygenated chains (α^{SH} and β^{SH}): determination of stoichiometries and equilibrium constants as a function of temperature.**
Roland Valdes, Jr. and Gary K. Ackers

82 **Thermodynamic studies on subunit assembly in human hemoglobin. Temperature dependence of the dimer-tetramer association constants for oxygenated and unliganded hemoglobins.**
Stephen H. C. Ip and Gary K. Ackers

88 **Thermodynamic studies on subunit assembly in human hemoglobin. Calorimetric measurements on the reconstitution of oxyhemoglobin from isolated chains.**
Roland Valdes, Jr. and Gary K. Ackers

92 **Cyclic adenosine 3′:5′-monophosphate-mediated insulin secretion and ribosomal protein phosphorylation in a hamster islet cell tumor.**
Ulrich K. Schubart, Shelley Shapiro, Norman Fleischer, and Ora M. Rosen

102 **Phosphorylation of rabbit and human erythrocyte membranes by soluble adenosine 3′:5′-monophosphate-dependent and -independent protein kinases.**
M. Marlene Hosey and Mariano Tao

110 **Human adenosine deaminase. Purification and subunit structure.**
Peter E. Daddona and William N. Kelley

116 **Mammalian endonuclease, DNase V. Purification and properties of enzyme of calf thymus.**
Er-Chung Wang and John J. Furth

125 **Study of equilibration of the system involving two alternative, enzymically active complementing structures simultaneously formed from two overlapping fragments of staphylococcal nuclease.**
Hiroshi Taniuchi, Diana S. Parker, and Janice L. Bohnert

141 **Deoxyribonucleic acid structure in human diploid fibroblasts stimulated to proliferate.**
James M. Collins

148 **Neutral amino acid transport. Characterization of the A and L systems in isolated rat hepatocytes.**
Alphonse Le Cam and Pierre Freychet

157 **Genetic differences in induction of cytosol reduced-NAD(P):menadione oxidoreductase and microsomal aryl hydrocarbon hydroxylase in the mouse.**
Kenji Kumaki, Nancy M. Jensen, John G. M. Shire, and Daniel W. Nebert

166 **Studies of human histone messenger RNA. I. Methods for the isolation and partial characterization of RNA fractions containing human histone message from HeLa S3 polyribosomes.**
Ralph E. Stephens, Chi-Jiunn Pan, Kozo Ajiro, Thomas W. Dolby, and Thaddeus W. Borun

173 **Studies of human histone messenger RNA. II. The resolution of fractions containing individual human histone messenger RNA species.**
Thaddeus W. Borun, Kozo Ajiro, Alfred Zweidler, Thomas W. Dolby, and Ralph E. Stephens

181 **Photocatalyzed labeling of adipocyte plasma membranes with an aryl azide derivative of glucose.**
Terry Trosper and Daniel Levy

187 **Structure of tetanus toxin. I. Breakdown of the toxin molecule and discrimination between polypeptide fragments.**
Torsten B. Helting and Oswald Zwisler

194 **Structure of tetanus toxin. II. Toxin binding to ganglioside.**
Torsten B. Helting, Oswald Zwisler, and Herbert Wiegandt

199 **The carbon monoxide-binding hemoprotein reducible by hydrogen peroxide in microsomal fractions of pea seeds.**
Atami Ishimaru and Isao Yamazaki

205 **20 β-Hydroxysteroid oxidoreductase. Kinetics and binding of corticosteroids and corticosteroid-21-aldehydes.**
Edward S. Szymanski and Charles S. Furfine

212 **Nitrogen 15 tracer studies on the pathway of denitrification in *Pseudomonas aeruginosa*.**
Richard T. St. John and Thomas C. Hollocher

219 **Cobalt regulation of heme synthesis and degradation in avian embryo liver cell culture.**
Mahin D. Maines and Peter Sinclair

224 **Mannosyltransferase activity in calf pancreas microsomes. Formation of ^{14}C-labeled lipid-linked oligosaccharides from GDP-D-[^{14}C]mannose and pancreatic dolichyl β-D-[^{14}C]mannopyranolsyl phosphate.**
Annette Herscovics, Anne Marianne Golovtchenko, Christopher D. Warren, Birgitte Bugge, and Roger W. Jeanloz

235 **A dimer of a single polypeptide chain catalyzes the terminal four reactions of the L-tryptophan pathway in *Euglena gracilis*.**
Charles N. Hankins and Stanley E. Mills

240 **Association-dissociation behavior of sesame α-globulin in electrolyte solutions.**
V. Prakash and P. K. Nandi

244 **Specific recognition of single-stranded nucleic acids. Interaction of tryptophan-containing peptides with native, denatured, and ultraviolet-irradiated DNA.**
Jean-Jacques Toulmé and Claude Hélène

250 **Amino acid sequence of a major apoprotein from hen plasma very low density lipoproteins.**
Richard L. Jackson, Hu-Yu Lin, Lawrence Chan, and Anthony R. Means

254 **Collagen cross-linking. Effect of D-penicillamine on cross-linking *in vitro*.**
Robert C. Siegel

260 **Regulation of phospholipid metabolism in differentiating cells from rat brain cerebral hemispheres in culture. Serine incorporation into serine phosphoglycerides: base**

exchange and decarboxylation patterns.
E. Yavin and B. P. Zeigler

268 **New types of RNA polymerase mutations causing temperature-sensitive sporulation in *Bacillus subtilis*.**
Terrance Leighton

273 **Nucleotide polymerases in the developing avian erythrocyte.**
Shirley S. Longacre and William J. Rutter

284 **Significance of multiple forms of brain monoamine oxidase *in situ* as probed by electron spin resonance.**
Rosa H. Huang and Samuel Eiduson

291 **Measurement of superhelix densities in buoyant dye/CsCl. The use of a standard other than native SV40 DNA.**
Rae L. Burke and William Bauer

293 **Interactions between solubilized cytochrome P-450 and hepatic microsomes. Characterizations of the binding and the enhanced catalytic activities.**
Chung S. Yang

299 **Progesterone-binding components of chick oviduct. Receptor B subunit protein purified to apparent homogeneity from laying hen oviducts.**
William T. Schrader, Robert W. Kuhn, and Bert W. O'Malley

308 **Progesterone-binding components of chick oviduct. Biochemical characterization of purified oviduct progesterone receptor B subunit.**
Robert W. Kuhn, William T. Schrader, William A. Coty, P. Michael Conn, and Bert W. O'Malley

318 **Development of sarcoplasmic reticulum in cultured chicken muscle.**
A. Martonosi, D. Roufa, R. Boland, E. Reyes, and T. W. Tillack

333 **Nucleotide sequence of a fragment of SV40 DNA that contains the origin of DNA replication and specifies the 5′ ends of "early" and "late" viral RNA. I. Mapping of the restriction endonuclease sites within the *Eco*RII-G fragment and strategy employed for its sequence analysis.**
Kiranur N. Subramanian, Ravi Dhar, and Sherman M. Weissman

340 **Nucleotide sequence of a fragment of SV40 DNA that contains the origin of DNA replication and specifies the 5′ ends of "early" and "late" viral RNA. II. Sequences of T_1 and pancreatic ribonuclease digestion products of RNA transcripts prepared from subfragments of *Eco*RII-G.**
Kiranur N. Subramanian, Ravi Dhar, Sherman M. Weissman, and Prabhat K. Ghosh

355 **Nucleotide sequence of a fragment of SV40 DNA that contains the origin of DNA replication and specifies the 5′ ends of "early" and "late" viral RNA. III. Construction of the total sequence of *Eco*RII-G fragment of SV40 DNA.**
Kiranur N. Subramanian, Ravi Dhar, and Sherman M. Weissman

368 **Nucleotide sequence of a fragment of SV40 DNA that contains the origin of DNA replication and specifies the 5′ ends of "early" and "late" viral RNA. IV. Localization of the SV40 DNA complementary to the 5′ ends of viral mRNA.**
Ravi Dhar, Kiranur N. Subramanian, Julian Pan, and Sherman M. Weissman

377 **Removal of the projections from cytoplasmic microtubules *in vitro* by digestion with trypsin.**
Richard B. Vallee and Gary G. Borisy

383 **Microtubular proteins of *Chlamydomonas reinhardtii*. An immunochemical study based on the use of an antibody specific for the β-tubulin subunit.**
Gianni Piperno and David J. L. Luck

392 **Comparison of mRNA binding by Met-tRNA$_f$ binding protein and mRNA-associated proteins.**
Alice Barrieux and Michael G. Rosenfeld

COMMUNICATIONS

399 **Purification from *Acanthamoeba castellanii* of proteins that induce gelation and syneresis of F-actin.**
Hiroshi Maruta and Edward D. Korn

403 **Chain equivalence in reaction of nitric oxide with hemoglobin.**
Rus Hille, Graham Palmer, and John S. Olson

ADDITIONS AND CORRECTIONS

406 **Protein degradation in human fibroblasts (WI-38). Effects of aging, viral transformation, and amino acid analogs. Vol. 251 (1976) 3521–3529.**
Matthews O. Bradley, Leonard Hayflick, and Robert T. Schimke

406 **Hemocyanin of the horseshoe crab, *Limulus polyphemus*. Structural differentiation of the isolated components. Vol. 251 (1976) 7644–7648.**
Bolling Sullivan, Joseph Bonaventura, Celia Bonaventura, and Gerald Godette

January 25, 1977

409 **Consequences of blocked sterol synthesis in cultured cells. DNA synthesis and membrane composition.**
Andrew A. Kandutsch and Harry W. Chen

416 **Cytochrome *c* turnover in rat skeletal muscles.**
Frank W. Booth and John O. Holloszy

420 **Isolation and physical characterization of hyaluronic acid prepared from bovine nasal septum by cetylpyridinium chloride precipitation.**
Robert L. Cleland and Anne P. Sherblom

427 **Studies on the kinetic mechanism of oxidative phosphorylation.**
Sheldon M. Schuster, Gregory D. Reinhart, and Henry A. Lardy

433 **pH-dependent conformational states of horse liver alcohol dehydrogenase.**
John K. Wolfe, Charles F. Weidig, Herbert R. Halvorson, Joseph D. Shore, David M. Parker, and J. John Holbrook

437 **NADPH-cytochrome P-450 reductase. Circular dichroism and physical studies.**
John A. Knapp, John David Dignam, and Henry W. Strobel

444 **Activation of rat adipocyte glycogen synthase by insulin.**
John C. Lawrence, Jr., Joan J. Guinovart, and Joseph Larner

451 **Purification and properties of the P15 specific restriction endonuclease from *Escherichia coli*.**
Jakob Reiser and Robert Yuan

457 **Purification of biologically active globin mRNA using cDNA-cellulose affinity chromatography.**
T. Gordon Wood and Jerry B. Lingrel

464 **A pregnenolone-binding protein in soluble fraction of guinea pig adrenal cortex.**
Charles A. Strott

471 **Codon-anticodon recognition in the valine codon family.**
Samir K. Mitra, Florentyna Lustig, Bengt Åkesson, Ulf Lagerkvist, and Lars Strid

479 **Specificity of fructose-1,6-P_2 aldolase (muscle) and partition of the enzyme among catalytic intermediates in the steady state.**
Irwin A. Rose and Edward L. O'Connell

483 **Isolation and purification of double-stranded ribonuclease from calf thymus.**
Kenzo Ohtsuki, Yoram Groner, and Jerard Hurwitz

492 **Activation of human plasminogen by equimolar levels of streptokinase.**
S. Paul Bajaj and Francis J. Castellino

499 **On the role of ATP in phosphodiester bond hydrolysis catalyzed by the *rec*BC deoxyribonuclease of *Escherichia coli*.**
Duane C. Eichler and I. R. Lehman

504 **Purification and properties of acetyl coenzyme A synthetase from bakers' yeast.**
Eugene P. Frenkel and Richard L. Kitchens

508 **Phosphorylation in membranes of intact human erythrocytes.**
Donald L. Shapiro and Vincent T. Marchesi

518 **Native heparin from rat peritoneal mast cells.**
Roger W. Yurt, R. Wesley Leid, Jr., K. Frank Austen, and Jeremiah E. Silbert

522 **Effects of β subunit acylation on lutropin receptor site binding.**
Wan-Kyng Liu, N. Burr Furlong, and Darrell N. Ward

528 **Activation of protein kinase and glycogen phosphorylase in isolated rat liver cells by glucagon and catecholamines.**
Morris J. Birnbaum and John N. Fain

536 **Nature of the free radical in ribonucleotide reductase from *Escherichia coli*.**
Britt-Marie Sjöberg, Peter Reichard, Astrid Gräslund, and Anders Ehrenberg

542 **Purification and properties of pig heart crotonase and the presence of short chain and long chain enoyl coenzyme A hydratases in pig and guinea pig tissues.**
Jim C. Fong and Horst Schulz

548 **The quantitative role of the kidneys in the *in vivo* metabolism of mevalonate.**
Millie Hughes Wiley, Marilyn M. Howton, and Marvin D. Siperstein

555 **Purification and properties of a polymorphic high activity equine erythrocyte carbonic anhydrase.**
Harold F. Deutsch, Jack R. Jabusch, and Kuang-Tzu D. Lin

560 **Insulin-like effects of polyamines in fat cells. Mediation by H_2O_2 formation.**
James N. Livingston, Paul A. Gurny, and Dean H. Lockwood

563 **Purification and properties of a heat-stable glucocerebrosidase activating factor from control and Gaucher spleen.**
Stephen P. Peters, Patrick Coyle, Carole J. Coffee, Robert H. Glew, Mark S. Kuhlenschmidt, Louis Rosenfeld, and Yuan C. Lee

574 **Multiple low spin forms of the cytochrome *c* ferrihemochrome. EPR spectra of various eukaryotic and prokaryotic cytochromes *c*.**
David L. Brautigan, Benjamin A. Feinberg, Brian M. Hoffman, E. Margoliash, J. Peisach, and W. E. Blumberg

583 **Transport of amino acids in renal brush border membrane vesicles. Uptake of the neutral amino acid L-alanine.**
Steven J. Fass, Marc R. Hammerman, and Bertram Sacktor

591 **Transport of amino acids in renal brush border membrane vesicles. Uptake of L-proline.**
Marc R. Hammerman and Bertram Sacktor

596 **Activation of guanylate cyclase in cerebral cortex of rat by hydroxylamine.**
Takeo Deguchi

602 **Degradation, receptor binding affinity, and potency of insulin from the Atlantic hagfish (*Myxine glutinosa*) determined in isolated rat fat cells.**
Stefan O. Emdin, Steen Gammeltoft, and Jørgen Gliemann

609 **Interspecies comparison of cytosolic and mitochondrial aspartate aminotransferases. Evidence for a more conservative evolution of the mitochondrial isoenzyme.**
Peter Sonderegger, Heinz Gehring, and Philipp Christen

613 **Studies on the cyclic 3′:5′-AMP-stimulated pig liver protein kinase reaction with pyruvate kinase as substrate.**
Lars Berglund, Olle Ljungström, and Lorentz Engström

620 **Studies on cobalt myoglobins and hemoglobins. Preparation of isolated chains containing cobaltous protoporphyrin IX and characterization of their equilibrium and kinetic properties of oxygenation and EPR spectra.**
Masao Ikeda-Saito, Haruhiko Yamamoto, Kiyohiro Imai, Fredric J. Kayne, and Takashi Yonetani

625 **Effect of Mg^{2+} concentration on the cAMP-dependent protein kinase-catalyzed activation of rabbit skeletal muscle phosphorylase kinase.**
Toolsee J. Singh and Jerry H. Wang

633 **Phosphorylation from adenosine triphosphate of sodium- and potassium-activated adenosine triphosphatase. Comparison of enzyme·ligand complexes as precursors to the phosphoenzyme.**
Sven Mårdh and Robert L. Post

639 **The covalent structure of cartilage collagen. Evidence for sequence heterogeneity of bovine α1 (II) chains.**
William T. Butler, John Edward Finch, Jr., and Edward J. Miller

644 **Mechanism of induction of 3-hydroxy-3-methylglutaryl coenzyme A reductase in human leukocytes.**
Alan M. Fogelman, Janet Seager, Peter A. Edwards, and G. Popják

652 **Antagonistic action between spermidine and putrescine on association and dissociation of purified, run-off ribosomes from *Escherichia coli*.**
Carmen L. Rosano and Charles Hurwitz

655 **Increase in level of functional messenger RNA coding for phosphoenolpyruvate carboxykinase (GTP) during induction by cyclic adenosine 3′:5′-monophosphate.**
Patrick B. Iynedjian and Richard W. Hanson

663 **Study of RNase A mechanism and folding by means of synthetic 63-residue analogs.**
Bernd Gutte

671 **A protein inhibitor of mitochondrial adenosine triphosphatase (F_1) from *Saccharomyces cerevisiae*.**
Eberhard Ebner and Konrad L. Maier

677 **An adenosine 3′:5′-monophosphate-adenosine binding protein from mouse liver. Purification and partial characterization.**
Per Magne Ueland and Stein Ove Døskeland

687 **Activation of steroidogenesis and adenylate cyclase by adenosine in adrenal and Leydig tumor cells.**
J. Wolff and G. Hope Cook

694 **Isolation and characterization of transfer RNAs from *Dictyostelium discoideum* during growth and development.**
Carl Mathew Palatnik, Eugene R. Katz, and Michael Brenner

704 **Assay and partial characterization of the solubilized cell surface receptor for immunoglobulin E.**
Guido Rossi, Steven A. Newman, and Henry Metzger

712 **Topography of the external surface of the human red blood cell membrane studied with a nonpenetrating label, [^{125}I]diazodiiodosulfanilic acid.**
David A. Sears, Joel M. Friedman, and James N. George

721 **Effect of ribosomal proteins on synthesis and assembly of preribosomal particles in isolated rat liver nuclei.**
Robert Bolla, Hans E. Roth, Herbert Weissbach, and Nathan Brot

726 **An energy-conserving pyruvate-to-acetate pathway in *Entamoeba histolytica*. Pyruvate synthase and a new acetate thiokinase.**
Richard E. Reeves, Lionel G. Warren, Brian Susskind, and Hsin-sheng Lo

732 **Purine nucleoside phosphorylase of rabbit liver. Mechanism of catalysis.**
Arthur S. Lewis

739 **The purification and characterization of rat liver lysosomal α-L-fucosidase.**
Dennis J. Opheim and Oscar Touster

744 **Structure and interactions of lipids in human plasma low density lipoproteins.**
Richard J. Deckelbaum, G. Graham Shipley, and Donald M. Small

755 **Investigation of the subunit interactions in malate dehydrogenase.**
Dennis M. Bleile, Robert A. Schulz, John H. Harrison, and Eugene M. Gregory

759 **Tuna cytochrome *c* at 2.0 Å resolution. I. Ferricytochrome structure analysis.**
Rosemarie Swanson, Benes L. Trus, Neil Mandel, Gretchen Mandel, Olga B. Kallai, and Richard E. Dickerson

776 **Tuna cytochrome *c* at 2.0 Å resolution. II. Ferrocytochrome structure analysis.**
Tsunehiro Takano, Benes L. Trus, Neil Mandel, Gretchen Mandel, Olga B. Kallai, Rosemarie Swanson, and Richard E. Dickerson

786 **Identification of glycoproteins and proteins at synapses in the central nervous system.**
Paul T. Kelly and Carl W. Cotman

COMMUNICATIONS

794 **Competence of soluble cell extracts as microtubule assembly systems. Comparison of simian virus 40 transformed and nontransformed mouse 3T3 fibroblasts.**
Gerhard Wiche, Victoria J. Lundblad, and R. David Cole

797 **Effect of the A and B protomers of choleragen on release of trapped glucose from liposomes containing or lacking ganglioside G_{M1}.**
Joel Moss, Roberta L. Richards, Carl R. Alving, and Peter H. Fishman

799 **Resolution of β-adrenergic receptor binding and adenylate cyclase activity by gel exclusion chromatography.**
Lee E. Limbird and Robert J. Lefkowitz

803 **Bacterial luciferase subunits are synthesized in equal quantities.**
Shiao-Chun Tu, John C. Makemson, James E. Becvar, and J. Woodland Hastings

ADDITIONS AND CORRECTIONS

806 **Acyl carrier protein metabolism and regulation of fatty acid biosynthesis by *Lactobacillus plantarum*. Vol. 251 (1976) 4706–4712.**
Joseph Eugene Sabaitis, Jr. and Gary L. Powell

February 10, 1977

807 **Protein kinase activity at the inner membrane of mammalian mitochondria.**
Alexander Vardanis

814 **Alteration of the kinetic parameters for aminoacylation of *Escherichia coli* formylmethionine transfer RNA by modification of an anticodon base.**
LaDonne H. Schulman and Heike Pelka

820 **Isolation and characterization of a component of the surface sheath of *Dictyostelium discoideum*.**
Hud Freeze and William F. Loomis

825 **β-Glucoside hydrolase activity of normal and glucosylceramidotic cultured human skin fibroblasts.**
O. Thomas Mueller and Abraham Rosenberg

830 **Transmission of the cytochrome *c* structural gene in horse-donkey crosses.**
Otto F. Walasek and E. Margoliash

835 **Transport and metabolism of vitamin B6 in lactic acid bacteria.**
James H. Mulligan and Esmond E. Snell

840 **Differentiation of metal ion-induced transitions of prothrombin fragment 1.**
Franklyn G. Prendergast and Kenneth G. Mann

851 **Phosphorylation of cardiac troponin by cyclic adenosine 3′:5′-monophosphate-dependent protein kinase.**
James T. Stull and Janice E. Buss

858 **A low molecular weight inhibitor of steroid receptor activation.**
Alain Bailly, Nicole Sallas, and Edwin Milgrom

864 **Solubility and diffusion coefficient of adenosine 3′:5′-monophosphate.**
Martin Dworkin and Kenneth H. Keller

866 ***In vitro* synthesis of a high molecular weight virion-associated RNA by vaccinia.**
Enzo Paoletti

872 **High molecular weight virion-associated RNA of vaccinia. A possible precursor to 8 to 12 S mRNA.**
Enzo Paoletti

878 **Metabolic regulation of aminoacyl-tRNA synthetase biosynthesis in baker's yeast.**
Robert C. Johnson, Paul R. Vanatta, and Jacques R. Fresco

883 **Primary structure of the "hinge" region of human IgG3. Probable quadruplication of a 15-amino acid residue basic unit.**
Terje E. Michaelsen, Blas Frangione, and Edward C. Franklin

890 **Prostaglandin endoperoxide E isomerase from bovine vesicular gland microsomes, a glutathione-requiring enzyme**
Nobuchika Ogino, Tsumoru Miyamoto, Shozo Yamamoto, and Osamu Hayaishi

896 **Spinach nitrite reductase. Purification and properties of a siroheme-containing iron-sulfur enzyme.**
Jose M. Vega and Henry Kamin

910 **Characterization and regulation of heart adenosine 3′:5′-monophosphate-dependent protein kinase isozymes.**
Jackie D. Corbin and Stanley L. Keely

919 **Steady state kinetics and binding of eukaryotic cytochromes *c* with yeast cytochrome *c* peroxidase.**
Chae Hee Kang, Shelagh Ferguson-Miller, and E. Margoliash

927 **Properties of passive binding of calcium to endoplasmic reticulum from adipocytes.**
David E. Bruns, Jay M. McDonald, and Leonard Jarett

933 **Identification of folate binding proteins in rat liver.**
Marilyn M. Zamierowski and Conrad Wagner

939 **Decreased lysyl oxidase activity in the aneurysm-prone, mottled mouse.**
David W. Rowe, Ermona B. McGoodwin, George R. Martin, and Douglas Grahn

943 **Different molecular forms of D-ribulose-1,5-bisphosphate carboxylase from *Rhodopseudomonas sphaeroides*.**
Janet L. Gibson and F. Robert Tabita

950 **Regulation of 3-hydroxy-3-methylglutaryl coenzyme A reductase in minimal deviation hepatoma 7288C. Immunological measurements in hepatoma tissue culture cells.**
Owen Ross Beirne, Renu Heller, and John A. Watson

955 **Impaired conversion of procollagen to collagen by fibroblasts and bone treated with tunicamycin, an inhibitor of protein glycosylation.**
Dan Duksin and Paul Bornstein

963 **Studies on the mechanism of the adenosylcobalamin-dependent diol dehydrase reaction by the use of analogs of the coenzyme.**
Tetsuo Toraya, Kazutoshi Ushio, Saburo Fukui, and Harry P. C. Hogenkamp

971 **Primary structure of rabbit skeletal muscle troponin-T. Purification of cyanogen bromide fragments and the amino acid sequence of fragment CB2.**
Joyce R. Pearlstone, Michael R. Carpenter, and Lawrence B. Smillie

978 **Primary structure of rabbit skeletal muscle troponin-T. Sequence determination of four cyanogen bromide fragments, CB4, CB5, CB6, and CB7.**
Joyce R. Pearlstone, Michael R. Carpenter, and Lawrence B. Smillie

983 **Primary structure of rabbit skeletal muscle troponin-T. Sequence determination of the NH_2-terminal fragment CB3 and the complete sequence of troponin-T.**
Joyce R. Pearlstone, Peter Johnson, Michael R. Carpenter, and Lawrence B. Smillie

990 **Revised amino acid sequence of Qβ coat protein between positions 1 and 60.**
Erwin Stoll, Kenneth J. Wilson, Jakob Reiser, and Charles Weissmann

994 **Proton inactivation of Ca^{2+} transport by sarcoplasmic reticulum.**
Mervyn C. Berman, David B. McIntosh, and James E. Kench

1002 **Aminoacyl adenylate, a normal intermediate or a dead end in aminoacylation of transfer ribonucleic acid.**
Ulf Lagerkvist, Bengt Åkesson, and Rolf Brändén

1007 **Evidence for the participation of saccharide-lipids in the synthesis of the oligosaccharide chain of ovalbumin.**
Douglas K. Struck and William J. Lennarz

1014 **Structural analysis of nine oligosaccharides isolated from the urine of a blood group O, nonsecretor, woman during pregnancy and lactation.**
Peter Hallgren and Arne Lundblad

1023 **Structural analysis of oligosaccharides isolated from the urine of a blood group A, secretor, woman during pregnancy and lactation.**
Peter Hallgren and Arne Lundblad

1034 **Quantitation of some urinary oligosaccharides during pregnancy and lactation.**
Peter Hallgren, Bo S. Lindberg, and Arne Lundblad

1041 **Cardiac adenosine 3′:5′-monophosphate. Free and bound forms in the isolated rat atrium.**
Wesley L. Terasaki and Gary Brooker

1051 **Metabolism of 5-fluorouracil in sensitive and resistant Novikoff hepatoma cells.**
David S. Wilkinson and Jeanne Crumley

1057 **Control of 3-hydroxy-3-methylglutaryl coenzyme A reductase by endogenously synthesized sterols *in vitro* and *in vivo*.**
Peter A. Edwards, G. Pápják, Alan M. Fogelman, and John Edmond

1064 **Protein kinases in brown adipose tissue of developing rats. State of activation of protein kinase during development and cold exposure and its relationship to adenosine 3′:5′-monophosphate, lipolysis, and heat production.**
Josef P. Skala and Brian L. Knight

1071 **Binding of tritiated bovine parathyroid hormone to plasma membranes from bovine kidney cortex.**
James E. Zull, Craig C. Malbon, and Jacinta Chuang

1079 **Studies of binding of parathyroid hormone to a detergent-dispersed preparation from bovine kidney cortex plasma membranes.**
Craig C. Malbon and James E. Zull

1084 **Binding of nucleotides to purified coupling factor-latent ATPase from *Mycobacterium phlei*.**
Soon-Ho Lee, Vijay K. Kalra, Carolyn J. Ritz, and Arnold F. Brodie

1092 **Hormonal control of transcription in the rat uterus. Stimulation of deoxyribonucleic acid-dependent RNA polymerase III by estradiol.**
P. Anthony Weil, Joseph Sidikaro, George M. Stancel, and Stanley P. Blatti

1099 **A soybean trypsin inhibitor. Crystallization and x-ray crystallographic study.**
David L. Hwang, Donald E. Foard, and Chin Hsuan Wei

1102 **Peptide mapping by limited proteolysis in sodium dodecyl sulfate and analysis by gel electrophoresis.**
Don W. Cleveland, Stuart G. Fischer, Marc W. Kirschner, and Ulrich K. Laemmli

1107 **Isolation of wheat germ agglutinin-resistant clones of Chinese hamster ovary cells deficient in membrane sialic acid and galactose.**
Eve Barak Briles, Ellen Li, and Stuart Kornfeld

1117 **Methylenetetrahydrofolate dehydrogenase-methenyltetrahydrofolate cyclohydrolase-formyltetrahydrofolate synthetase. A multifunctional protein from porcine liver.**
Larry U. L. Tan, Elizabeth J. Drury, and Robert E. MacKenzie

COMMUNICATIONS

1123 **Characterization of a novel metabolic pathway of arachidonate in coronary arteries which generates a potent endogenous coronary vasodilator.**
Amiram Raz, Peter C. Isakson, Mark S. Minkes, and Philip Needleman

ADDITIONS AND CORRECTIONS

1127 **Properties of succinyl-CoA: 3-ketoacid coenzyme A transferase. Vol. 251 (1976) 1708–1711.**
Howard White and William P. Jencks

1127 **Partial specific volume, expansibility, compressibility, and heat capacity of aqueous lysozyme solutions. Vol. 251 (1976) 4001–4004.**
Frank J. Millero, Gary K. Ward, and Peter Chetirkin

1128 **Factors affecting the acyl selectivities of acyltransferases in *Escherichia coli*. Vol. 251 (1976) 2487–2492.**
Harumi Okuyama, Kazuyo Yamada, Hiroh Ikezawa, and Salih J. Wakil

February 25, 1977

1129 **Stability and subunit structure of human α_2-macroglobulin.**
Jean-Pierre Frénoy, Roland Bourrillon, Roland Lippoldt, and Harold Edelhoch

1134 **Podophyllotoxin as a probe for the colchicine-binding site of tubulin.**
Ferdinando Cortese, B. Bhattacharyya, and J. Wolff

1141 **Comparison of the esterase and human plasminogen activator activities of various activated forms of human plasminogen and their equimolar streptokinase complexes.**
Robert C. Wohl, Leonida Arzadon, Louis Summaria, and Kenneth C. Robbins

1148 **Inhibition of DNA replication in *Escherichia coli* by dibromophenol and other uncouplers.**
Paul H. Weigel and Paul T. Englund

1156 **Properties of a nuclear polyadenylate·protein complex from mouse ascites cells.**
Thomas J. Quinlan, Alan J. Kinniburgh, and Terence E. Martin

1162 **Purification and properties of galactokinase from *Saccharomyces cerevisiae*.**
Mark A. Schell and David B. Wilson

1167 **Characterization of liver cholic acid coenzyme A ligase activity. Evidence that separate microsomal enzymes are responsible for cholic acid and fatty acid activation.**
Mark A. Polokoff and Robert M. Bell

1172 **Structural studies on the oligosaccharides of a glycoprotein isolated from alveoli of patients with alveolar proteinosis.**
Sambhu N. Bhattacharyya and William S. Lynn

1181 **Relative importance of 7-methylguanosine in ribosome binding and translation of vesicular stomatitis virus mRNA in wheat germ and reticulocyte cell-free systems.**
Harvey F. Lodish and John K. Rose

1189 **Amino acid sequence of phospholipase A_2 from horse pancreas.**
Adolf Evenberg, Hendrik Meyer, Willem Gaastra, Hubertus M. Verheij, and Gerard H. de Haas

1197 **Magnetic resonance studies of three forms of creatine kinase. Comparison of the properties of native, CH_3S-blocked and H_2NCOCH_2-blocked enzymes.**
George D. Markham, George H. Reed, Edward T. Maggio, and George L. Kenyon

1202 **Properties of a CH_3S-blocked creatine kinase with altered catalytic activity. Kinetic consequences of the presence of the blocking group.**
Edward T. Maggio, George L. Kenyon, George D. Markham, and George H. Reed

1208 **Role of apolipoprotein A-I in the structure of human serum high density lipoproteins. Reconstitution studies.**
Mary C. Ritter and Angelo M. Scanu

1217 **Adrenal glucocorticoids, adenine nucleotide translocation, and mitochondrial calcium accumulation.**
Satoshi Kimura and Howard Rasmussen

1226 **Direct generation of superoxide anions by flash photolysis of human oxyhemoglobin.**
L. S. Demma and J. M. Salhany

1231 **Total conversion of glycogen synthase from the I- to the D-form by a cyclic AMP-independent protein kinase from rabbit skeletal muscle.**
Emilio Itarte, J. C. Robinson, and Kuo-Ping Huang

1235 **Human endonuclease specific for apurinic/apyrimidinic sites in DNA. Partial purification and characterization of multiple forms from placenta.**
W. Stephen Linsley, Edward E. Penhoet, and Stuart Linn

1243 **Nature of interaction of dextran sulfate with lecithin dispersions and lysolecithin micelles.**
Young C. Kim and Toshiro Nishida

1250 **Effect of aspartate on complexes between glutamate dehydrogenase and various aminotransferases.**
Leonard A. Fahien, Shih Lo Hsu, and Edward Kmiotek

1257 **Novel enzymic machinery for the metabolism of oxalacetate, phosphoenolpyruvate, and pyruvate in *Pseudomonas citronellolis*.**
Reginald W. O'Brien, David T. Chuang, B. L. Taylor, and Merton F. Utter

1264 **Interaction of thyroid peroxidase with concanavalin A covalently coupled to agarose.**
Joseph T. Neary, Don Koepsell, Betty Davidson, Ann Armstrong, H. Vincent Strout, Morris Soodak, and Farahe Maloof

1272 **Translation of albumin messenger RNA in a cell-free protein-synthesizing system derived from wheat germ.**
Tenny P. H. Tse and John M. Taylor

1279 **Stimulation of human platelet guanylate cyclase by fatty acids.**
David B. Glass, William Frey, II, Daniel W. Carr, and Nelson D. Goldberg

1286 **Binding of concanavalin A to the surface of sea urchin eggs and its alteration upon fertilization.**
Michel Veron and Bennett M. Shapiro

1293 **Expression of genes for metabolism of cyclic adenosine 3′:5′-monophosphate in somatic cells. β-Adrenergic and PGE_1 receptors in parental and hybrid cells.**
Laurence L. Brunton, Michael E. Maguire, Hannah J. Anderson, and Alfred G. Gilman

1303 **Pyruvate metabolism in bovine epididymal spermatozoa.**
Cornelis Van Dop, Susan M. Hutson, and Henry A. Lardy

1309 **Mitochondrial metabolism of pyruvate in bovine spermatozoa.**
Susan M. Hutson, Cornelis Van Dop, and Henry A. Lardy

1316 **Serum angiotensin-converting enzyme. Isolation and relationship to the pulmonary enzyme.**
Manjusri Das, James L. Hartley, and Richard L. Soffer

1320 **Mechanism of action of uridine diphosphoglucose dehydrogenase. Evidence for an essential lysine residue at the active site.**
Alfred B. Ordman and Samuel Kirkwood

1327 **Electron paramagnetic resonance study of carp methemoglobin.**
L. Charles Dickinson and James C. W. Chien

1331 **Nonequivalence of subunits in [^{15}N]nitrosylhemoglobin Kansas. A single crystal electron paramagnetic resonance investigation.**
James C. W. Chien and L. Charles Dickinson

1336 **Purification and properties of microsomal UDP-glucuronosyltransferase from rat liver.**
Jeffrey P. Gorski and Charles B. Kasper

1344 **Noncoordinated transcription in the absence of protein synthesis in yeast.**
Richard W. Shulman, Conjeevaram E. Sripati, and Jonathan R. Warner

1350 **Partial purification and properties of a ribosomal RNA maturation endonuclease from *Bacillus subtilis*.**
Mitchell L. Sogin, Bernadette Pace, and Norman R. Pace

1358 **Estrogen binding proteins of calf uterus. Molecular and functional characterization of the receptor transforming factor: a Ca^{2+}-activated protease.**
Giovanni Alfredo Puca, Ernesto Nola, Vincenzo Sica, and Francesco Bresciani

1367 **Formation of a biologically active, ordered complex from two overlapping fragments of cytochrome *c*.**
Roy R. Hantgan and Hiroshi Taniuchi

1375 **Characterization of the nucleoside triphosphate phosphohydrolase (ATPase) activity of RNA synthesis termination factor ρ. I. Enzymatic properties and effects of inhibitors.**
Carolyn Lowery and John P. Richardson

1381 **Characterization of the nucleoside triphosphate phosphohydrolase (ATPase) activity of RNA synthesis termination factor ρ. II. Influence of synthetic RNA homopolymers and random copolymers on the reaction.**
Carolyn Lowery and John P. Richardson

1386 **Sequence analysis of protamine mRNA from the rainbow trout. Depurination and nearest neighbor analysis of protamine cDNA.**
Peter L. Davies, L. Norman Ferrier, and Gordon H. Dixon

1394 **Energy coupling to net K^+ transport in *Escherichia coli* K-12.**
David B. Rhoads and Wolfgang Epstein

1402 **Kinetic properties and substrate specificities of two cellulases from auxin-treated pea epicotyls.**
Yuk-Shan Wong, Geoffrey B. Fincher, and Gordon A. Maclachlan

1408 **Prostaglandin production by methylcholanthrene-transformed mouse BALB/3T3. Requirement for protein synthesis.**
Sheng-Shung Pong, Su-chen L. Hong, and Lawrence Levine

1414 **3-Hydroxy-3-methylglutaryl-CoA synthase. Participation of acetyl-*S*-enzyme and enzyme-*S*-hydroxymethylglutaryl-SCoA intermediates in the reaction.**
Henry M. Miziorko and M. Daniel Lane

1421 **The 24-hydroxylation of 1,25-dihydroxyvitamin D_3.**
Yoko Tanaka, Lourdes Castillo, Hector F. DeLuca, and Nobuo Ikekawa

1425 **Inactivation of avian myeloblastosis virus DNA polymerase by specific binding of pyridoxal 5′-phosphate to deoxynucleoside triphosphate binding site.**
Takis S. Papas, Thomas W. Pry, and Dante J. Marciani

1431 **P-enolpyruvate carboxykinase ferroactivator. Purification and some properties.**
Larry A. Bentle and Henry A. Lardy

1441 **Concentrations of cyclic AMP-dependent protein kinase subunits in various tissues.**
Franz Hofmann, Peter J. Bechtel, and Edwin G. Krebs

1448 **Regulation of cyclic nucleotide phosphodiesterases in cultured hepatoma cells by dexamethasone and N^6, $O^{2'}$-dibutyryl adenosine 3′:5′-monophosphate.**
Peter S. Ross, Vincent C. Manganiello, and Martha Vaughan

1453 **Amino acid sequence of *Desulfovibrio vulgaris* flavodoxin.**
Michel Dubourdieu and J. Lawrence Fox

1464 **Characterization and kinetics of native and chemically activated human liver alcohol dehydrogenases.**
André Dubied, Jean-Pierre von Wartburg, David P. Bohlken, and Bryce V. Plapp

1471 **Dissimilarity in protein chain elongation factor requirements between yeast and rat liver ribosomes.**
Lawrence Skogerson and Dean Engelhardt

1476 **Regulation by insulin of amino acid release and protein turnover in the perfused rat hemicorpus.**
Leonard S. Jefferson, Jeanne B. Li, and Stephen R. Rannels

1484 **Role of phosphoprotein phosphatases in reversible deactivation of chicken adipose tissue hormone-sensitive lipase.**
David L. Severson, John C. Khoo, and Daniel Steinberg

1490 **A new large form of transcarboxylase with six outer subunits and twelve biotinyl carboxyl carrier subunits.**
Harland G. Wood, Jye-Ping Chiao, and Edward M. Poto

1500 **Electron microscopy of the large form of transcarboxylase with six attached subunits.**
Nicholas G. Wrigley, Jye-Ping Chiao, and Harland G. Wood

1505 **Artificial hybrid protein containing a toxic protein fragment and a cell membrane receptor-binding moiety in a disulfide conjugate. I. Synthesis of diphtheria toxin fragment A-S-S-human placental lactogen with methyl-5-bromovalerimidate.**
Ta-min Chang and David M. Neville, Jr.

1515 **Artificial hybrid protein containing a toxic protein fragment and a cell membrane receptor-binding moiety in a disulfide conjugate. II. Biochemical and biologic properties of diphtheria toxin fragment A-S-S-human placental lactogen.**
Ta-min Chang, Alice Dazord, and David M. Neville, Jr.

COMMUNICATIONS

1523 **Dissociation of prelycopersene pyrophosphate synthetase from phytoene synthetase complex of tomato fruit plastids.**
Mohammad A. Islam, Stephen A. Lyrene, Edward M. Miller, Jr., and John W. Porter

iii **Cumulative author index. Numbers 1 through 4.**

1527 **Transient kinetic studies on the allosteric transition of phosphoglycerate dehydrogenase.**
Robert Dubrow and Lewis I. Pizer

1539 **Transient kinetic and deuterium isotope effect studies on the catalytic mechanism of phosphoglycerate dehydrogenase.**
Robert Dubrow and Lewis I. Pizer

1552 **Studies on inactivation of pyruvate dehydrogenase by palmitoylcarnitine oxidation in isolated rat heart mitochondria.**
Richard G. Hansford

1561 **Evidence for the presence of a natural inactivating factor of 3-hydroxy-3-methylglutaryl coenzyme A reductase in soluble extracts from rat liver microsomes.**
Calvin D. Tormanen, Mayasandra V. Srikantaiah, Joel E. Hardgrave, and Terence J. Scallen

1566 **A novel approach to the identification of surface receptors. The use of photosensitive hetero-bifunctional cross-linking reagent.**
Tae H. Ji

1571 **Inactivation of bacterial D-amino acid transaminase by the olefinic amino acid D-vinylglycine.**
Thomas S. Soper, James M. Manning, Patrick A. Marcotte, and Christopher T. Walsh

1576 **Effects of prostaglandins and oxytocin on calcium release from a uterine microsomal fraction. Hypothesis for ionophoretic action of prostaglandins.**
Mary E. Carsten and Jordan D. Miller

1582 **Effect of membrane environment on succinate dehydrogenase activity.**
Brian A. C. Ackrell, Edna B. Kearney, and Thomas P. Singer

1589 **Quantitative analysis of the change of metabolite fluxes along the pentose phosphate and glycolytic pathways in *Tetrahymena* in response to carbohydrates.**
Michael J. Borowitz, Robert B. Stein, and Jacob J. Blum

1606 **Rat muscle 5′-adenylic acid aminohydrolase. Role of K^+ and adenylate energy charge in expression of kinetic and regulatory properties.**
Carole J. Coffee and Cynthia Solano

1613 **Rat liver proteins capable of transferring phosphatidylethanolamine. Purification and transfer activity for other phospholipids and cholesterol.**
Bernabé Bloj and Donald B. Zilversmit

1620 **Calcium uptake and associated adenosine triphosphatase activity in fragmented sarcoplasmic reticulum. Requirement for potassium ions.**
P. Finbarr Duggan

1628 **Purification and properties of the urea amidolyase from *Candida utilis*.**
Abdul Waheed and Peter A. Castric

1633 **Mechanisms of acylation of chymotrypsin by phenyl esters of benzoic acid and acetic acid.**
Colin D. Hubbard and T. Scott Shoupe

1639 **Mutants of mouse fibroblasts altered in the synthesis of cell surface glycoproteins. Preliminary evidence for a defect in the acetylation of glucosamine 6-phosphate.**
Jacques Pouysségur and Ira Pastan

1647 **Endonuclease V of *Escherichia coli*.**
Frederick T. Gates, III and Stuart Linn

1654 **Human angiotensinogen. Purification, partial characterization, and a comparison with animal prohormones.**
Morton P. Printz, Jana M. Printz, and Robert T. Dworschack

1663 **1-Alkyl-*sn*-glycero-3-phosphate:acyl-CoA acyltransferase in rat brain microsomes.**
Patrick J. Fleming and Amiya K. Hajra

1673 **Reaction of cardiac myosin with a purine disulfide analog of adenosine triphosphate. I. Kinetics of inactivation and binding of adenylyl imidodiphosphate.**
Lois E. Greene and Ralph G. Yount

1681 **Reaction of cardiac myosin with a purine disulfide analog of adenosine triphosphate. II. Stoichiometry and subunit location of labeling.**
Lois E. Greene and Ralph G. Yount

1689 **Complete covalent structure of statherin, a tyrosine-rich acidic peptide which inhibits calcium phosphate precipitation from human parotid saliva.**
David H. Schlesinger and Donald I. Hay

1696 **Limited proteolysis of nitrate reductase purified from membranes of *Escherichia coli*.**
John A. DeMoss

1702 **Metabolic properties of the products of mitochondrial protein synthesis in HeLa cells.**
Paolo Costantino and Giuseppe Attardi

1712 **Progesterone-stimulated meiotic cell division in *Xenopus* oocytes. Induction by regulator" subunit and inhibition by catalytic subunit of adenosine 3′:5′-monophosphate-dependent protein kinase.**
James L. Maller and Edwin G. Krebs

1719 **Formation of adenosine 5′-phosphoroglycerol from ATP and glycerol by rat liver plasma membranes.**
Judith Ryan, Gary N. Rogers, Diane G. Toscano, and Dan R. Storm

1723 **Treatment of an encephalitogenic peptide from guinea pig myelin basic protein with α-protease and thermolysin. Isolation of fragments and determination of cleavage sites.**
Kohji Nomura, Russell E. Martenson, and Gladys E. Deibler

1728 **Turbidimetric ultracentrifugation. Application to the study of human serum very low density lipoprotein distributions.**
Shun Kin Ma, Verne N. Schumaker, and Charles M. Knobler

1732 **Bacteriophage T4 RNA ligase. Reaction intermediates and interaction of substrates.**
Akio Sugino, Thomas J. Snopek, and Nicholas R. Cozzarelli

1739 **Function of initiation factor 1 in the binding and release of initiation factor 2 from ribosomal initiation complexes in *Escherichia coli*.**
Evan A. Stringer, Probir Sarkar, and Umadas Maitra

1745 **Penicillinase-releasing protease of *Bacillus licheniformis* 749. Specificity for hydroxyamino acids.**
P. S. Aiyappa and J. Oliver Lampen

1748 **Regulation of rat liver acetyl coenzyme A carboxylase. Evidence for interconversion between active and inactive forms of enzyme by phosphorylation and dephosphorylation.**
Kwei-Hwang Lee and Ki-Han Kim

1752 **Hydrogen peroxide lowers ATP levels in platelets without altering adenylate energy charge and platelet function.**
Holm Holmsen and Linda Robkin

1758 **The 5′-terminal structures of murine α- and β-globin messenger RNA.**
Tu-chen Cheng and Haig H. Kazazian, Jr.

1764 **Methylated nucleosides in globin mRNA from mouse nucleated erythroid cells.**
William L. Heckle, Jr., Robert G. Fenton, T. Gordon Wood, Christian G. Merkel, and Jerry B. Lingrel

1771 **Lipoprotein-mediated regulation of 3-hydroxy-3-methylglutaryl coenzyme A reductase activity and cholesteryl ester metabolism in the adrenal gland of the rat.**
S. Balasubramaniam, Joseph L. Goldstein, Jerry R. Faust, Gloria Y. Brunschede, and Michael S. Brown

1780 **Effects of UDP-glucose addition on the synthesis of mannosyl lipid-linked oligosaccharides by cell-free fibroblast preparations.**
Phillips W. Robbins, Sharon S. Krag, and Theresa Liu

1786 **Studies of individual carbon sites of hen egg white lysozyme by natural abundance carbon 13 nuclear magnetic resonance spectroscopy. Assignment of the nonprotonated aromatic carbon resonances to specific residues in the sequence.**
Adam Allerhand, Raymond S. Norton, and Ray F. Childers

1795 **Participation of tryptophan 62 in the self-association of hen egg white lysozyme. Application of natural abundance carbon 13 nuclear magnetic resonance spectroscopy.**
Raymond S. Norton and Adam Allerhand

1799 **Amino acid sequence of dogfish muscle lactate dehydrogenase.**
Susan S. Taylor

1807 **Cancer-associated serum galactosyltransferase activity. Demonstration in an animal model system.**
Daniel K. Podolsky, Milton M. Weiser, Jane C. Westwood, and Maureen Gammon

1814 **Requirement of the δ subunit of chloroplast coupling factor 1 for photophosphorylation.**
Hassan M. Younis, G. Douglas Winget, and Efraim Racker

1819 **Synthesis of tubulin and actin by neuronal and glial nuclear preparations from developing rat brain.**
Illana Gozes, Michael D. Walker, Alvin M. Kaye, and Uriel Z. Littauer

COMMUNICATIONS

1826 **Chemical evidence for common genetic ancestry of complement components C3 and C5.**
Horacio N. Fernandez and Tony E. Hugli

1829 **Stability of glycolytic enzymes of human erythrocytes.**
Toshio Asakura, Peter L. Herridge, Patricia K. Ghory, and Kazuhiko Adachi

March 25, 1977

1831 **Role of pyruvate kinase in the regulation of gluconeogenesis from L-lactate.**
Robert Rognstad and Joseph Katz

1834 **Oxygenated cytochrome *o*. An active intermediate observed in whole cells of *Vitreoscilla*.**
Dale A. Webster and Yutaka Orii

1837 **ε-(γ-Glutamyl)lysine cross-links in human stratum corneum.**
John L. Abernethy, Robert L. Hill, and Lowell A. Goldsmith

1840 **The ovalbumin gene. Insertion of ovalbumin gene sequences in chimeric bacterial plasmids.**
Larry A. McReynolds, John J. Monahan, Don W. Bendure, Savio L. C. Woo, Gary V. Paddock, Winston Salser, John Dorson, Robb E. Moses, and Bert W. O'Malley

1844 **Effect of CrATP on the association of the reacting forms of yeast hexokinase.**
Berwin P. Yip and Frederick B. Rudolph

1847 **Properties of immunoreactive glucagon fractions of canine stomach and pancreas.**
Coimbatore B. Srikant, Kay McCorkle, and Roger H. Unger

1852 **Monovalent cation activation of tryptophanase.**
Clarence H. Suelter and Esmond E. Snell

1858 **Regulation of adenosine triphosphate sulfurylase in cultured tobacco cells. Effects of sulfur and nitrogen sources on the formation and decay of the enzyme.**
Ziva Reuveny and Philip Filner

1865 **Effects of chemical modification of antibodies on their clearance from the circulation. Addition of simple aliphatic compounds by reductive alkylation and carbodiimide-promoted amide formation.**
Jeffrey L. Winkelhake

1869 **Interaction of AMP-aminohydrolase with myosin and its subfragments.**
Barrie Ashby and Carl Frieden

1873 **DNA polymerases from bakers' yeast.**
Lucy M. S. Chang

1881 **Purification and characterization of two major DNA-binding proteins in human serum.**
Sallie O. Hoch and Ella McVey

1888 **Boar proacrosin. Purification and preliminary activation studies of proacrosin isolated from ejaculated boar sperm.**
Kenneth L. Polakoski and Richard F. Parrish

1895 **Investigation of the binding site of human corticosteroid-binding globulin by affinity labeling. Demonstration of a cysteinyl residue in the binding site.**
M. Saeed Khan and William Rosner

1901 **Mechanism of regulation of adenylate cyclase activity in human polymorphonuclear leukocytes by calcium, guanosyl nucleotides, and positive effectors.**
Viktor Stolc

1908 **Hemoglobin switching in sheep and goats. Preparation and characterization of complementary DNAs specific for the α-, β-, and γ-globin messenger RNAs of sheep.**
Edward J. Benz, Jr., Craig E. Geist, Alan W. Steggles, Jane E. Barker, and Arthur W. Nienhuis

1917 **Proteases from purulent sputum. Purification and properties of the elastase and chymotrypsin-like enzymes.**
Daniel Y. Twumasi and Irvin E. Liener

1927 **Correlation between activation and dimer formation of rat renal phosphate-dependent glutaminase.**
Susan Godfrey, Theresa Kuhlenschmidt, and Norman P. Curthoys

1932 **Primed and unprimed synthesis of poly(dA-dT) by calf thymus DNA polymerase α.**
David Henner and John J. Furth

1938 **Dependence of ionophore- and caffeine-induced calcium release from sarcoplasmic reticulum vesicles on external and internal calcium ion concentrations.**
Arnold M. Katz, Doris I. Repke, and Wilhelm Hasselbach

1950 **Dependence of calcium permeability of sarcoplasmic reticulum vesicles on external and internal calcium ion concentrations.**
Arnold M. Katz, Doris I. Repke, Jane Dunnett, and Wilhelm Hasselbach

1957 **Interactions of phospho- and dephosphosuccinyl coenzyme A synthetase with manganous ion and substrates. Studies of manganese complexes by NMR relaxation rates of water protons.**
Daniel H. Buttlaire, Mildred Cohn, and William A. Bridger

1965 **Incorporation of dietary *cis* and *trans* isomers of octadecenoate in lipid classes of liver and hepatoma.**
Randall Wood, Fred Chumbler, and Rex Wiegand

1971 **Distribution of keratan sulfate in cartilage proteoglycans.**
Dick Heinegård and Inge Axelsson

1980 **Polydispersity of cartilage proteoglycans. Structural variations with size and buoyant density of the molecules.**
Dick Heinegård

1990 **Active amino acid transport in plasma membrane vesicles from simian virus 40-transformed mouse fibroblasts. Characteristics of electrochemical Na^+ gradient-stimulated uptake.**
Julia E. Lever

1998 **Purification and properties of colony-stimulating factor from mouse lung-conditioned medium.**
Antony W. Burgess, James Camakaris, and Donald Metcalf

2004 **Magnetic resonance studies of the manganese guanosine di- and triphosphate complexes with elongation factor Tu.**
G. Edwin Wilson, Jr. and Mildred Cohn

2010 **Exit transport of a cyclic nucleotide from mouse L-cells.**
Peter G. W. Plagemann and John Erbe

2017 **Tryptic cleavage of rat liver sulfite oxidase. Isolation and characterization of molybdenum and heme domains.**
Jean L. Johnson and K. V. Rajagopalan

2026 **Purification and properties of a β-mannosidase from *Aspergillus niger*.**
Alan D. Elbein, Surekha Adya, and Yuan Chuan Lee

2032 **Asparagine transaminase from rat liver.**
Arthur J. L. Cooper

2039 **Proteolytic activation of rat liver adenylate cyclase by a contaminant of crude collagenase from *Clostridium histolyticum*.**
Jacques Hanoune, Dominique Stengel, Marie-Lise Lacombe, Gérard Feldmann, and Evelyne Coudrier

2046 **Biosynthesis of ferritin in rat hepatoma cells and rat livers. I. Synthesis and assembly of protein subunits of ferritin.**
Shuishih S. C. Lee and Goetz W. Richter

2054 **Biosynthesis of ferritin in rat hepatoma cells and rat livers. II. Binding of iron by ferritin protein.**
Shuishih S. C. Lee and Goetz W. Richter

2060 **Relationship of nuclear estrogen receptor levels to induction of ovalbumin and conalbumin mRNA in chick oviduct.**
Eileen R. Mulvihill and Richard D. Palmiter

2069 **Prostaglandin E_2 biosynthesis by rabbit renomedullary interstitial cells in tissue culture. Mechanism of stimulation by angiotensin II, bradykinin, and arginine vasopressin.**
Randall M. Zusman and Harry R. Keiser

2072 **Structure of peptide from active site region of *Escherichia coli* L-asparaginase.**
Robert G. Peterson, Frank F. Richards, and R. E. Handschumacher

2077 **Effect of variations in lipopolysaccharide on the fluidity of the outer membrane of *Escherichia coli*.**
Shlomo Rottem and Loretta Leive

2082 **Purification and characterization of UDP-galactose-4-epimerase from bovine tissues.**
Collis R. Geren and Kurt E. Ebner

2089 **Inhibition and inactivation of bovine mammary and liver UDP-galactose-4-epimerases.**
Collis R. Geren, Lois M. Geren, and Kurt E. Ebner

2095 **Mechanisms of lymphocyte activation. Binding kinetics of phytohemagglutinin to human lymphocytes.**
Guy B. Faguet

2101 **Microtubular protein catalytic interactions with nucleotides.**
Barry Zeeberg, Aviv Hassid, and Michael Caplow

2106 **Partial purification and characterization of a translational inhibitor from Friend leukemia cells.**
Pairoh Pinphanichakarn, Gisela Kramer, and Boyd Hardesty

2113 **Isolation, chemical characterization, and biophysical properties of three different abnormal lipoproteins: LP-X_1, LP-X_2, and LP-X_3.**
Josef R. Patsch, Kirk C. Aune, Antonio M. Gotto, Jr., and Joel D. Morrisett

2121 **Platelet plasma membrane glycoproteins. Evidence for the presence of nonequivalent disulfide bonds using nonreduced-reduced two-dimensional gel electrophoresis.**
David R. Phillips and Patricia Poh Agin

2127 **Tonofilament protein from newborn rat epidermis. Isolation, localization, and biosynthesis of marker of epidermal differentiation.**
Miriam M. Brysk, Robert H. Gray, and I. A. Bernstein

2134 **Isolation and characterization of plasma membranes and intact nuclei from lymphoid cells.**
Marti Jett, T. M. Seed, and G. A. Jamieson

2143 **Acetylcholine receptor metabolism in a nonfusing muscle cell line.**
Jim Patrick, Jerri McMillan, Helen Wolfson, and Jean C. O'Donnell

COMMUNICATIONS

2154 **The elongation factor Tu coded by the *tufA* gene of *Escherichia coli* K-12 is almost identical to that coded by the *tufB* gene.**
Anthony V. Furano

2158 **Increasing activity of enzymes on pathway of triacylglycerol synthesis during adipose conversion of 3T3 cells.**
Walid Kuri-Harcuch and Howard Green

ADDITIONS AND CORRECTIONS

2161 **Poly(A)-rich ribonucleoprotein complexes from HeLa cell messenger RNA. Vol. 251 (1976) 5888–5894.**
Valerie M. Kish and Thoru Pederson

2161 **Biochemical aspects of cardiac muscle differentiation. Possible control of deoxyribonucleic acid synthesis and cell differentiation by adrenergic innervation and cyclic adenosine 3′:5′-monophosphate. Vol. 251 (1976) 6082–6089.**
William C. Claycomb

April 10, 1977

2163 **Nanosecond time-dependent fluorescence depolarization of diphenylhexatriene in dimyristoyllecithin vesicles and the determination of "microviscosity."**
Lydia A. Chen, Robert E. Dale, Stephen Roth, and Ludwig Brand

2170 **Active transport of 5-hydroxytryptamine by plasma membrane vesicles isolated from human blood platelets.**
Gary Rudnick

2175 **Purification and some properties of the Glu- and Lys-human plasmin heavy chains.**
Mario Gonzalez-Gronow, Bernard N. Violand, and Francis J. Castellino

2178 **Studies on *Limulus* amoebocyte lysate. Isolation of proclotting enzyme.**
Joseph Y. Tai and Teh-Yung Liu

2182 **Preparative polyacrylamide gel electrophoretic purification of human α- and β-globin messenger RNAs.**
Uri Nudel, Francesco Ramirez, Paul A. Marks, and Arthur Bank

2187 **5-*O*-β-D-Galactofuranosyl-containing exocellular glycopeptide of *Penicillium charlesii*. Incorporation of mannose from GDP-D-mannose into glycopeptide.**
J. E. Gander, Lester R. Drewes, Faye Fang, and Alec Lui

2194 **Interaction of human and bovine A-I apolipoproteins with L-α-dimyristoyl phosphatidylcholine and L-α-myristoyl lysophosphatidylcholine.**
Ana Jonas and Douglas J. Krajnovich

2200 **Physical properties of isolated complexes of human and bovine A-I apolipoproteins with L-α-dimyristoyl phosphatidylcholine.**
Ana Jonas, Douglas J. Krajnovich, and Bruce W. Patterson

2206 **Subunit structure of biodegradative threonine deaminase.**
Yukikazu Saeki, Seiji Ito, Yutaka Shizuta, Osamu Hayaishi, Hiroyuki Kagamiyama, and Hiroshi Wada

2209 **Cloning and amplification of rabbit α- and β-globin gene sequences into *Escherichia coli* plasmids.**
François Rougeon and Bernard Mach

2218 **Automated sequencing of insoluble peptides using detergent. Bacteriophage fl coat protein.**
George S. Bailey, Dianne Gillett, Diana F. Hill, and George B. Petersen

2226 **Actions of insulin in fat cells. Effects of low temperature, uncouplers of oxidative phosphorylation, and respiratory inhibitors.**
Tetsuro Kono, Frances W. Robinson, Janine A. Sarver, Felix V. Vega, and Richard H. Pointer

2234 **Quantitative determination of carbamino adducts of α and β chains in human adult hemoglobin in presence and absence of carbon monoxide and 2,3-diphosphoglycerate.**
James B. Matthew, Jon S. Morrow, Richard J. Wittebort, and Frank R. N. Gurd

2245 **Direct assignment of the cysteinyl, the slowly exchangeable, and the aromatic ring ^1H nuclear magnetic resonances in clostridial-type ferredoxins.**
Elliot L. Packer, William V. Sweeney, Jesse C. Rabinowitz, Himan Sternlicht, and Elliott N. Shaw

2254 **Distribution of sulfated mucopolysaccharides in invertebrates.**
Célia M. F. Cássaro and Carl P. Dietrich

2262 **Proton magnetic relaxation of aspartate transcarbamylase·succinate complexes.**
Carol Beard Ireland and Paul G. Schmidt

2271 **Glucosyltransferase activity in calf pancreas microsomes. Formation of dolichyl D-[^{14}C]glucosyl phosphate and ^{14}C-labeled lipid-linked oligosaccharides from UDP-D-[^{14}C]-glucose.**
Annette Herscovics, Birgitte Bugge, and Roger W. Jeanloz

2278 **Quaternary structure of δ-aminolevulinic acid synthase from *Rhodopseudomonas spheroides*.**
Dhirendra L. Nandi and David Shemin

2281 **RNA-dependent DNA polymerase of avian sarcoma virus B77. I. Isolation and partial characterization of the α, β_2, and αβ forms of the enzyme.**
Amnon Hizi and Wolfgang K. Joklik

2290 **RNA-dependent DNA polymerase of avian sarcoma virus B77. II. Comparison of the catalytic properties of the**

α, β_2, and $\alpha\beta$ enzyme forms.
Amnon Hizi, Jonathan P. Leis, and Wolfgang K. Joklik

2296 **Fluorescent substrate for nascent peptidoglycan synthesis. Uridine diphosphate-*N*-acetylmuramyl-(N^{ϵ}-5-dimethylaminonaphthalene-1-sulfonyl)pentapeptide.**
William A. Weppner and Francis C. Neuhaus

2304 **Initiation of synthesis of messenger RNA of deoxynucleotide kinase by oligoribonucleotides.**
Peter J. Natale and John M. Buchanan

2311 **Isolation of *Escherichia coli* precursor tRNAs containing modified nucleoside Q.**
Gabriel Vögeli, Thomas S. Stewart, Thomas McCutchan, and Dieter Söll

2319 **Two distinct types of trimethoprim-resistant dihydrofolate reductase specified by R-plasmids of different compatibility groups.**
Kathryn H. Pattishall, Jacques Acar, James J. Burchall, F. W. Goldstein, and Robert J. Harvey

2324 **A new form of structural lipoprotein of outer membrane of *Escherichia coli*.**
Simon Halegoua, Jun Sekizawa, and Masayori Inouye

2331 **Oxygen equilibrium curve of normal human blood and its evaluation by Adair's equation.**
Robert M. Winslow, Mei-Lie Swenberg, Robert L. Berger, Richard I. Shrager, Massimo Luzzana, Michele Samaja, and Luigi Rossi-Bernardi

2338 **Porcine A blood group-specific *N*-acetylgalactosaminyltransferase. I. Purification from porcine submaxillary glands.**
Martin Schwyzer and Robert L. Hill

2346 **Porcine A blood group-specific *N*-acetylgalactosaminyltransferase. II. Enzymatic properties.**
Martin Schwyzer and Robert L. Hill

2356 **Purification of a sialyltransferase from bovine colostrum by affinity chromatography on CDP-agarose.**
James C. Paulson, William E. Beranek, and Robert L. Hill

2363 **Enzymatic properties of β-D-galactoside $\alpha 2 \rightarrow 6$ sialyltransferase from bovine colostrum.**
James C. Paulson, James I. Rearick, and Robert L. Hill

2372 **Glycoprotein biosynthesis in myeloma cells. Characterization of nonglycosylated immunoglobulin light chain secreted in presence of 2-deoxy-D-glucose.**
Patricia K. Eagon and Edward C. Heath

2384 **Glycogen synthase kinases. Distribution in mammalian tissues of forms that are independent of cyclic AMP.**
Keith K. Schlender and Erwin M. Reimann

2390 **Preparation and properties of immobilized rubredoxin.**
Sheldon W. May and Jong-Yuan Kuo

2396 **Effect of estrogen on gene expression in the chick oviduct. Preferential initiation and asymmetrical transcription of specific chromatin genes.**
Howard C. Towle, Ming-Jer Tsai, Sophia Y. Tsai, and Bert W. O'Malley

2405 **Chemical modification of the histidine residue in phospholipase A_2 (*Naja naja naja*). A case of half-site reactivity.**
Mary Fedarko Roberts, Raymond A. Deems, Terry C. Mincey, and Edward A. Dennis

2412 **Action of intrinsic sialidase of rat brain synaptic membranes on membrane sialolipid and sialoprotein components *in situ*.**
Herbert C. Yohe and Abraham Rosenberg

2419 **Functional characterization of anion transport system isolated from human erythrocyte membranes.**
J. Mario Wolosin, Hagai Ginsburg, and Z. Ioav Cabantchick

2428 **Induction of δ-aminolevulinate synthase and porphyrins in cultured liver cells maintained in chemically defined medium. Permissive effects of hormones on induction process.**
Shigeru Sassa and Attallah Kappas

COMMUNICATIONS

2437 **Biological cross-reactivity of rat testis phosphodiesterase activator protein and rabbit skeletal muscle troponin-C.**
John R. Dedman, James D. Potter, and Anthony R. Means

2441 **Phosphoglycolate phosphatase in human erythrocytes.**
John A. Badwey

2444 **Biosynthesis of lipid-linked oligosaccharides in cotton fibers. Stimulation by lipids from pig liver.**
W. Thomas Forsee and Alan D. Elbein

2447 **Preferential usage of glycyl-tRNA isoaccepting species in collagen synthesis.**
Agamemnon Carpousis, Paul Christner, and Joel Rosenbloom

2450 **Molecular organization of subunits of electroplax (sodium plus potassium)-activated adenosine triphosphatase.**
Dou Huey Jean and R. Wayne Albers

2452 **Thermodynamics of Ca^{2+} binding to troponin-C.**
James D. Potter, Fu-Juan Hsu, and Henry J. Pownall

2455 **Mechanism of action of choleragen. Evidence for ADP-ribosyltransferase activity with arginine as an acceptor.**
Joel Moss and Martha Vaughan

ADDITIONS AND CORRECTIONS

2458 **Effect of triiodothyronine on the synthesis and degradation of renal cortical ($Na^+ + K^+$)-adenosine triphosphatase. Vol. 251 (1976) 7834–7840.**
Chu-Shek Lo and Isidore S. Edelman

2458 **Binding of acetyl-CoA to chicken liver pyruvate carboxylase. Vol. 252 (1977) 51–56.**
William H. Frey, II and Merton F. Utter

April 25, 1977

2459 **Heterogeneity and refined structures of 3-*O*-methyl-D-mannose polysaccharides from *Mycobacterium smegmatis*.**
Shyamal Kumar Maitra and Clinton E. Ballou

2470 **Acetylated methylmannose polysaccharide of *Streptomyces griseus*.**
L. Scott Harris and Gary R. Gray

2478 **Evidence for energy-dependent change in phosphate binding for mitochondrial oxidative phosphorylation based on measurements of medium and intermediate phosphate-water exchanges.**
Jan Rosing, Celik Kayalar, and Paul D. Boyer

2486 **An alternating site sequence for oxidative phosphorylation suggested by measurement of substrate binding patterns and exchange reaction inhibitions.**
Celik Kayalar, Jan Rosing, and Paul D. Boyer

2492 **Uridine and cytidine transport in *Escherichia coli* B and transport-deficient mutants.**
Kwok-Kee Leung and Donald W. Visser

2498 **Enzymatic transfer of mannose from mannosyl-phosphoryl-polyprenol to lipid-linked oligosaccharides by pig aorta.**
James Chambers, W. T. Forsee, and Alan D. Elbein

2507 **Alkaline structural transition of 4-nitrobenz-2-oxa-1,3-diazolyl-lysozyme. Kinetic and spectroscopic investigations.**
Rolf H. Sigg, Pier Luigi Luisi, and Akintola A. Aboderin

2515 **Binding of 25-hydroxycholecalciferol in tissues.**
Hugo Van Baelen, Roger Bouillon, and Pieter De Moor

2519 **Dependence of mitochondrial protein synthesis initiation on formylation of the initiator methionyl-$tRNA_f$.**
Renato Bianchetti, Giovanni Lucchini, Paolo Crosti, and Paolo Tortora

2524 **Selective inhibition of *in vitro* DNA synthesis dependent on ϕX174 compared with fd DNA. I. Protein requirements for selective inhibition.**
Rafael Vicuna, Jerard Hurwitz, Susan Wallace, and Marc Girard

2534 **Selective inhibition of ϕX RFII compared with fd RFII DNA synthesis *in vitro*. II. Resolution of discrimination reaction into multiple steps.**
Rafael Vicuna, Joh-E Ikeda, and Jerard Hurwitz

2545 **Resolution and partial characterization of two aldehyde reductases of mammalian liver.**
Daulat Ram P. Tulsiani and Oscar Touster

2551 **Bisulfite-induced C → U transitions in yeast alanine tRNA.**
Opinder S. Bhanot and Robert W. Chambers

2560 **Isolation and characterization of valine transfer RNA from *Saccharomyces cerevisiae*.**
Shohei Aoyagi, Opinder S. Bhanot, and Robert W. Chambers

2566 **Bisulfite-induced C → U transitions in yeast valine tRNA.**
Opinder S. Bhanot, Shohei Aoyagi, and Robert W. Chambers

2575 **Chemical synthesis of phosphorylated retinoids. Their mannosyl acceptor activity in rat liver membranes.**
Luigi M. De Luca, Jacques P. Frot-Coutaz, Carol S. Silverman-Jones, and Peter R. Roller

2580 ***Solanum glaucophyllum* as source of 1,25-dihydroxyvitamin D_3.**
Joseph L. Napoli, Lorraine E. Reeve, John A. Eisman, Heinrich K. Schnoes, and Hector F. DeLuca

2584 **Chemical structure of the galactomannan from the cell wall of *Aspergillus niger*.**
Promode C. Bardalaye and John H. Nordin

2592 **Initiation and translation *in vitro* of mRNA for MOPC 315 immunoglobulin heavy chain and characterization of translation product.**
Donna L. Bedard and Ru Chih C. Huang

2599 **γ-Glutamylcysteine synthetase. Further purification, "half of the sites" reactivity, subunits, and specificity.**
Ronald Sekura and Alton Meister

2606 **Covalent interaction of L-2-amino-4-oxo-5-chloropentanoate at glutamate binding site of γ-glutamylcysteine synthetase.**
Ronald Sekura and Alton Meister

2611 **Kinetic studies dealing with immobilized reversible enzyme system. Experimental evidence for shift of apparent equilibrium constant within bienzyme system.**
Jean Michel Le Moullec and Daniel Thomas

2615 **Arginine deiminase from *Mycoplasma arthritidis*. Evidence for multiple forms.**
Joachim L. Weickmann and David E. Fahrney

2621 **Sindbis envelope proteins as endogenous acceptors in reactions of guanosine diphosphate-[^{14}C]mannose with preparations of infected chicken embryo fibroblasts.**
Sharon S. Krag and Phillips W. Robbins

2630 **Chromatin fractionation related to cell type and chromosome condensation but perhaps not to transcriptional activity.**
Michael M. Seidman and R. David Cole

2640 **Isolation, crystallization, and properties of indolyl-3-alkane α-hydroxylase. A novel tryptophan-metabolizing enzyme.**
Joseph Roberts and Henry J. Rosenfeld

2648 **Crystalline hemoprotein from *Pseudomonas* that catalyzes oxidation of side chain of tryptophan and other indole derivatives.**
Katsuji Takai, Hiroshi Ushiro, Yoichi Noda, Shuh Narumiya, Takashi Tokuyama, and Osamu Hayaishi

2657 **Evidence for separate enzymes of pyruvate decarboxylation and pyruvate synthesis in soluble extracts of *Clostridium pasteurianum*.**
Roy S. Bush and Frank D. Sauer

2662 **Studies on α-adrenergic activation of hepatic glucose output. Studies on role of calcium in α-adrenergic activation of phosphorylase.**
Françoise D. Assimacopoulos-Jeannet, Peter F. Blackmore, and John H. Exton

2670 **Adriamycin interactions with T4 DNA polymerase. Two modes of template-mediated inhibition.**
Myron F. Goodman, Gary M. Lee, and Nicholas R. Bachur

2675 **Neutral amino acid transport systems of tissue culture cells.**
Dale L. Oxender, Mary Lee, Pamela A. Moore, and Gary Cecchini

2680 **Regulation of amino acid transport activity and growth rate of animal cells in culture.**
Dale L. Oxender, Mary Lee, and Gary Cecchini

2684 **Competition between globin messenger ribonucleic acids for a discriminating initiation factor.**
David Kabat and M. Renea Chappell

2691 **Purification and characterization of catalytic subunit of skeletal muscle adenosine 3′:5′-monophosphate-dependent protein kinase.**
Peter J. Bechtel, Joseph A. Beavo, and Edwin G. Krebs

2698 **Evidence for single mechanism for aminoacyl-tRNA synthetases including aminoacyl adenylates as intermediates.**
Jung-Ja Park Kim, Kalpana Chakraburtty, and Alan H. Mehler

2702 **Identification of D-*threo*-α-methylisocitrate as stereochemically specific substrate for bovine heart aconitase and inhibitor of TPN-linked isocitrate dehydrogenase.**
Richard L. Beach, Tadashi Aogaichi, and Gerhard W. E. Plaut

2710 **Enzymatic conversion of bilirubin monoglucuronide to diglucuronide by rat liver plasma membranes.**
Peter L. M. Jansen, J. Roy Chowdhury, Ellyn B. Fischberg, and Irwin M. Arias

2717 **Effect of concanavalin A on tyrosine aminotransferase in rat hepatoma tissue culture cells. Rapid reversible inactivation of soluble enzyme.**
Thirukkannangudi V. Gopalakrishnan (Gopal) and E. Brad Thompson

2726 **Lipoprotein regulation of 3-hydroxy-3-methylglutaryl coenzyme A reductase activity in rat liver cell cultures.**
Jan L. Breslow, David A. Lothrop, Alexander W. Clowes, and Samuel E. Lux

2734 **Intracellular DNA-protein complexes from bacteriophage T4-infected cells isolated by a rapid two-step procedure. Characterization and identification of the protein components.**
Colin Manoil, Navin Sinha, and Bruce Alberts

2742 **Isolation of chicken hemoglobin mRNA and synthesis of complementary DNA.**
Shirley S. Longacre and William J. Rutter

2753 **Selective association of spectrin with the cytoplasmic surface of human erythrocyte plasma membranes. Quantitative determination with purified [^{32}P]spectrins.**
Vann Bennett and Daniel Branton

2764 **Depolarization-induced phosphorylation of specific proteins, mediated by calcium ion influx, in rat brain synaptosomes.**
Bruce K. Krueger, Javier Forn, and Paul Greengard

COMMUNICATIONS

2774 **Intracellular utilization of superoxide anion by indoleamine 2,3-dioxygenase of rabbit enterocytes.**
Taketoshi Taniguchi, Fusao Hirata, and Osamu Hayaishi

2777 **Synthesis of myelin glycosphingolipids (galactosylceramide and galactosyl (3-*O*-sulfate) ceramide (sulfatide)) by cloned cell lines derived from mouse neurotumors**
Glyn Dawson, Nirmala Sundarraj, and Steven E. Pfeiffer

2780 **Self-phosphorylation of cyclic guanosine 3′:5′-monophosphate-dependent protein kinase from bovine lung. Effect of cyclic adenosine 3′:5′-monophosphate, cyclic guanosine 3′:5′-monophosphate, and histone.**
Hugo R. de Jonge and Ora Mendelsohn Rosen

2784 **Activation of epinephrine-sensitive adenylate cyclase in rat liver by cytosolic protein·nucleotide complex.**
Françoise Pecker and Jacques Hanoune

2787 **Thyroid hormone regulation of β-adrenergic receptor number.**
Lewis T. Williams, Robert J. Lefkowitz, August M. Watanabe, David R. Hathaway, and H. R. Besch, Jr.

2790 **Effects of GTP on binding of [^{3}H]glucagon to receptors in rat hepatic plasma membranes.**
Michael C. Lin, Simonetta Nicosia, Pramod M. Lad, and Martin Rodbell

2793 **Identification of a γ-glutamyl methyl ester in bacterial membrane protein involved in chemotaxis.**
Paul Van Der Werf and Daniel E. Koshland, Jr.

ADDITIONS AND CORRECTIONS

2796 **Genetic variants of human erythrocyte glucose-6-phosphate dehydrogenase. Kinetic and thermodynamic parameters of variants A, B, and A⁻ in relation to quaternary structure.** Vol. 251 (1976) 2993–3002.
A. Olaniyi G. Babalola, John G. Beetlestone, and Lucio Luzzatto

iii **Cumulative author index. Numbers 1 through 8.**

May 10, 1977

2797 **Mechanism of C-5 double bond introduction in the biosynthesis of cholesterol by rat liver microsomes. Evidence for the participation of microsomal cytochrome b_5.**
Vangala V. R. Reddy, David Kupfer, and Eliahu Caspi

2802 **Endonuclease from *Escherichia coli* that acts specifically upon duplex DNA damaged by ultraviolet light, osmium tetroxide, acid, or x-rays.**
Frederick T. Gates, III and Stuart Linn

2808 **A new endonuclease from *Escherichia coli* acting at apurinic sites in DNA.**
Siv Ljungquist

2815 **Characterization of the m⁷G(5′)pppN-pyrophosphatase activity from HeLa cells.**
Donald L. Nuss and Yasuhiro Furuichi

2822 **Effects of free fatty acids on activity of hepatic microsomal 3-hydroxy-3-methylglutaryl coenzyme A reductase and on secretion of triglyceride and cholesterol by liver.**
Edward H. Goh and Murray Heimberg

2827 **Genetic regulation of UDP-glucuronosyltransferase induction by polycyclic aromatic compounds in mice. Cosegregation with aryl hydrocarbon (benzo[*a*]pyrene) hydroxylase induction.**
Ida S. Owens

2834 **Comparative properties of vertebrate parvalbumins.**
Hubert E. Blum, Pavel Lehky, Laure Kohler, Eric A. Stein, and Edmond H. Fischer

2839 **Resolution of two forms of cytochrome P-450 from liver microsomes of rabbits treated with 2,3,7,8-tetrachlorodibenzo-*p*-dioxin.**
Eric F. Johnson and Ursula Muller-Eberhard

2846 **Yeast mutants deficient in heme biosynthesis and a heme mutant additionally blocked in cyclization of 2,3-oxidosqualene.**
Edith G. Gollub, Kuo-peing Liu, Jean Dayan, Mella Adlersberg, and David B. Sprinson

2855 **Purification of phosphoprotein phosphatase from bovine cardiac muscle that catalyzes dephosphorylation of cyclic AMP-binding protein component of protein kinase.**
Chen-Kung Chou, Josephine Alfano, and Ora Mendelsohn Rosen

2860 **Detection of multiple forms of rat liver ornithine decarboxylase.**
Mark F. Obenrader and Walter F. Prouty

2866 **Production of monospecific antibodies to rat liver ornithine decarboxylase and their use in turnover studies.**
Mark F. Obenrader and Walter F. Prouty

2873 **Functionally important arginine residues of aspartate transcarbamylase.**
Evan R. Kantrowitz and William N. Lipscomb

2881 **An aspartate transcarbamylase lacking catalytic subunit interactions. Study of conformational changes by ultraviolet absorbance and circular dichroism spectroscopy.**
Danièle Kerbiriou, Guy Hervé, and John H. Griffin

2891 **Reversible binding of P_i by beef heart mitochondrial adenosine triphosphatase.**
Harvey S. Penefsky

2900 **Derepression of amino acid transport by amino acid starvation in rat hepatoma cells.**
Joanne H. Heaton and Thomas D. Gelehrter

2908 **Adrenodoxin reductase and adrenodoxin. Mechanisms of reduction of ferricyanide and cytochrome *c*.**
J. David Lambeth and Henry Kamin

2918 **Glucuronosyl-*N*-acetylglucosaminyl pyrophosphoryldolichol. Formation in SV_{40}-transformed human lung fibroblasts and biosynthesis in rat lung microsomal preparations.**
S. J. Turco and Edward C. Heath

2929 **Calorimetric study of microsomal membrane.**
Susan Mabrey, Garth Powis, John B. Schenkman, and Thomas R. Tritton

2934 **Kinetic evidence for an acyl-enzyme intermediate in D-alanine carboxypeptidases of *Bacillus subtilis* and *Bacillus stearothermophilus*.**
Tokuzo Nishino, John W. Kozarich, and Jack L. Strominger

2940 **α-Ketoglutarate dehydrogenase complex of *Acetobacter xylinum*. Purification and regulatory properties.**
Saul Kornfeld, Moshe Benziman, and Yoram Milner

2948 **Regulation of phospholipase A_2 activity by different lipid-water interfaces.**
Arend J. Slotboom, Maria C. E. van Dam-Mieras, and Gerard H. de Haas

2952 **Oxygen-linked CO_2 binding to isolated β subunits of human hemoglobin.**
Christian Bauer and Armin Kurtz

2956 **Adenosine triphosphate synthesis by electrochemical proton gradient in vesicles reconstituted from purified adenosine triphosphatase and phospholipids of a thermophilic bacterium.**
Nobuhito Sone, Masasuke Yoshida, Hajime Hirata, and Yasuo Kagawa

2961 **Biological and biochemical properties of *Phaseolus vulgaris* isolectins.**
Richard D. Leavitt, Ronald L. Felsted, and Nicholas R. Bachur

2967 **Recombinations of subunits of *Phaseolus vulgaris* isolectins.**
Ronald L. Felsted, Merrill J. Egorin, Richard D. Leavitt, and Nicholas R. Bachur

2972 **Steroid hormone receptors in normal human lymphocytes. Induction of glucocorticoid receptor activity by phytohemagglutinin stimulation.**
James P. Neifeld, Marc E. Lippman, and Douglass C. Tormey

2978 **Pure renin. Isolation from hog kidney and characterization.**
Tadashi Inagami and Kazuo Murakami

2984 **Biosynthesis of mitochondrial DNA. Is 8 S DNA an artifact?**
Glenn C. Van Tuyle, Franklin D. Hamilton, Frances F. Vissering, and Melvin V. Simpson

2992 **Structure of carbohydrate of hemoglobin A_{Ic}.**
Ronald J. Koenig, Steven H. Blobstein, and Anthony Cerami

2998 **Nonenzymatic glycosylation of hemoglobin.**
Victor J. Stevens, Helen Vlassara, Allan Abati, and Anthony Cerami

3003 **DNase-sensitive sites in nucleosomes. Their relative susceptibilities depend on nuclease used.**
James P. Whitlock, Jr., George W. Rushizky, and Robert T. Simpson

3007 **Ionic inhibition of catalytic phosphorylation of histone by bovine brain protein kinase.**
George W. Moll, Jr. and Emil Thomas Kaiser

3012 **Pseudosymmetry in the structure of myohemerythrin.**
Wayne A. Hendrickson and Keith B. Ward

3019 **Regulation of deoxyribonucleotide biosynthesis during *in vivo* bacteriophage T4 DNA replication. Intrinsic control of synthesis of thymine and 5-hydroxymethylcytosine deoxyribonucleotides at precise ratio found in DNA.**
James B. Flanegan and G. Robert Greenberg

3028 ***Neurospora crassa* glutamine synthetase. Translation of specific messenger ribonucleic acid in a cell-free system derived from rabbit reticulocytes.**
Rafael Palacios, Miguel Campomanes, and Carmen Quinto

3035 **Sidedness of (sodium, potassium)-adenosine triphosphatase of inside-out red cell membrane vesicles. Interactions with potassium.**

Rhoda Blostein and Lily Chu

3044 **Ca^{2+}-dependent effect of ATP on spin-labeled sarcoplasmic reticulum.**
Carol R. Coan and Giuseppe Inesi

3050 **Phospholipid synthesis in isolated fat cells. Studies of microsomal diacylglycerol cholinephosphotransferase and diacylglycerol ethanolaminephosphotransferase activities.**
Rosalind Coleman and Robert M. Bell

3057 **Solubilization and properties of mannose and *N*-acetylglucosamine transferases involved in formation of polyprenyl-sugar intermediates.**
Aaron Heifetz and Alan D. Elbein

3064 **Multiple pathways for primary processing of ribosomal RNA in *Escherichia coli*.**
Peter Gegenheimer, Ned Watson, and David Apirion

3074 **Preparation and characterization of subfractions of bovine thyroid plasma membranes.**
Seiji Suzuki, Christopher C. Widnell, and James B. Field

3082 **Phosphorylation of yeast DNA-dependent RNA polymerases *in vivo* and *in vitro*. Isolation of enzymes and identification of phosphorylated subunits.**
Graeme I. Bell, Pablo Valenzuela, and William J. Rutter

3092 **Purification and characterization of core-associated polynucleotide 5′-triphosphatase from vaccinia virus.**
Daniel J. Tutas and Enzo Paoletti

COMMUNICATIONS

3099 **Immunological cross-reaction between calf and *Drosophila* histones.**
Michael Bustin, Ronald H. Reeder, and Steven L. McKnight

3102 **Immunospecific retention of oligonucleotides possessing N^6-methyladenosine and 7-methylguanosine.**
Theodore W. Munns, Harold F. Sims, and M. Kathryn Liszewski

May 25, 1977

3105 **Brain isoenzyme of creatine kinase. I. Purification of rabbit enzyme and production of specific antibodies.**
John B. Armstrong, J. Alexander Lowden, and Allan L. Sherwin

3112 **Brain isoenzyme of creatine kinase. II. Species specificity of enzyme and presence of inactive form in striated muscle of rabbit and man.**
John B. Armstrong, J. Alexander Lowden, and Allan L. Sherwin

3117 **Brain isoenzyme of creatine kinase. III. Active and inactive forms in dystrophic muscle of vitamin E-deficient rabbit.**
John B. Armstrong, J. Alexander Lowden, and Allan L. Sherwin

3121 **Phosphoenolpyruvate synthetase of *Escherichia coli*. Molecular weight, subunit composition, and identification of phosphohistidine in phosphoenzyme intermediate.**
Suree Narindrasorasak and William A. Bridger

3128 **Source of residual Bohr effect in hemoglobin oxidation.**
Chris Bull, Gary Goncher, Cliff S. Deutschman, and Brian M. Hoffman

3131 **Monosaccharide transport in protein-depleted vesicles from erythrocyte membranes.**
Michael A. Zoccoli and Gustav E. Lienhard

3136 **Formation of adenosine 3′:5′-monophosphate by preparations of guanylate cyclase from rat liver and other tissues.**
Chandra K. Mittal and Ferid Murad

3141 **Magnetic resonance studies of concanavalin A. Assignment of histidine resonances in 220 MHz proton spectrum of complexes with Co^{2+} and Zn^{2+}.**
Jeremy P. Carver, Brian H. Barber, and Bryan J. Fuhr

3147 **Effects of arginine binding reagents on ATPase and ATP-P_i exchange activities of mitochondrial ATP synthetase complex (complex V).**
Luciano Frigeri, Yves M. Galante, Walter G. Hanstein, and Youssef Hatefi

3153 **Spectral studies of lactose repressor protein modified with nitrophenol reporter groups.**
Clarence F. Sams, B. Ellen Friedman, Alex A. Burgum, Diane S. Yang, and Kathleen S. Matthews

3160 **Bovine adrenal tyrosine hydroxylase. Purification and properties.**
Robert Hoeldtke and Seymour Kaufman

3170 **Inactivation of bacterial D-amino acid transaminase by β-chloro-D-alanine.**
Thomas S. Soper, Wanda M. Jones, Brad Lerner, Moshe Trop, and James M. Manning

3176 **Polynucleotide kinase exchange reaction. Quantitative assay for restriction endonuclease-generated 5′-phosphoryl termini in DNAs.**
Kathleen L. Berkner and William R. Folk

3185 ***Eco*RI cleavage and methylation of DNAs containing modified pyrimidines in the recognition sequence.**
Kathleen L. Berkner and William R. Folk

3194 **Lipid-protein interactions in membranes. Interaction of phospholipids with respiratory enzymes of *Escherichia coli* membrane.**
Mojtaba Esfahani, Brian B. Rudkin, Constance J. Cutler, and Peter E. Waldron

3199 **Ion pair formation in pig heart lipoamide dehydrogenase. Rationalization of pH profiles for reactivity of oxidized enzyme with dihydrolipoamide and 2-electron-reduced enzyme with lipoamide and iodoacetamide.**
Rowena G. Matthews, David P. Ballou, Colin Thorpe, and Charles H. Williams, Jr.

3208 **Selective incorporation of membrane proteins into proteoliposomes of different compositions.**
Gera D. Eytan and Efraim Racker

3214 **Isolation of glutamic acid methyl ester from an *Escherichia coli* membrane protein involved in chemotaxis.**
Steven J. Kleene, Myron L. Toews, and Julius Adler

3219 **Extracellular exo-β-galactofuranosidase from *Penicillium charlesii*. Isolation, purification, and properties.**
Mireille Rietschel-Berst, Neil H. Jentoft, Paul D. Rick, Carol Pletcher, Faye Fang, and J. E. Gander

3227 **Purification and characterization of α-D-mannosidase from rat liver Golgi membranes.**
Daulat Ram P. Tulsiani, Dennis J. Opheim, and Oscar Touster

3234 **Effects of estrogen, glucocorticoid, glucagon, and adenosine 3′:5′-monophosphate on catalytic activity, amount, and rate of *de novo* synthesis of hepatic histidase.**
Coral A. Lamartiniere and Muriel Feigelson

3240 **Effect of manganese(ous) and sulfate on activity of human placental glucose 6-phosphate-dependent form of glycogen synthase.**
Kuo-Ping Huang and J. C. Robinson

3245 **Mechanism of aflatoxin B_1 inhibition of rat hepatic nuclear RNA synthesis**
Fu-Li Yu

3252 **Complementation of peptides of barnase, extracellular ribonuclease of *Bacillus amyloliquefaciens***
Robert W. Hartley

3255 **Immunochemical studies on two electrophoretically homogeneous forms of rabbit liver microsomal cytochrome P-450: $P\text{-}450_{LM_2}$ and $P\text{-}450_{LM_4}$**
William L. Dean and Minor J. Coon

3262 **Effect of calcium and magnesium on binding of β,γ-methylene ATP to sarcoplasmic reticulum.**
David C. Pang and F. Norman Briggs

3267 **Occurrence of a binding protein for 11-*cis*-retinal in retina.**
Sidney Futterman, John C. Saari, and Seth Blair

3272 **Induction of 3-hydroxy-3-methylglutaryl coenzyme A reductase in HeLa cells by glucocorticoids.**
Webster K. Cavenee and George Melnykovych

3277 **Blood group activity of human sucrase from intestinal metaplasia.**

Mariko Kurisu, Noriko Numanyu, Takashi Kawachi, and Takashi Sugimura

3281 **Sequential reactivity of tyrosyl residues of thyroglobulin upon iodination catalyzed by thyroid peroxidase.**
Jean Michel Gavaret, Danièle Dème, Jacques Nunez, and Gaetano Salvatore

3286 **DNA *N*-glycosidases. Properties of uracil-DNA glycosidase from *Escherichia coli*.**
Tomas Lindahl, Siw. Ljungquist, Wolfgang Siegert, Barbro Nyberg, and Berit Sperens

3295 ***N*-Acetylglutamate synthase of *Escherichia coli*. Purification, characterization, and molecular properties.**
Douglas K. Marvil and Thomas Leisinger

3304 **Purification and properties of a plant endonuclease specific for apurinic sites.**
Lise Thibodeau and Walter G. Verly

3310 **Cyclic AMP metabolism in cholesterol-rich platelets.**
Asru K. Sinha, Sanford J. Shattil, and Robert W. Colman

3315 **Monovalent cation stimulation of Ca^{2+} uptake by cardiac membrane vesicles. Correlation with stimulation of Ca^{2+}-ATPase activity.**
Larry R. Jones, Henry R. Besch, Jr., and August M. Watanabe

3324 **Estrogen-binding protein from rat preputial gland. Purification and characterization.**
Mark Feldman, Walter Voigt, and Sung L. Hsia

3328 **Structure and action of heteronemertine polypeptide toxins. Disulfide bonds of *cerebratulus lacteus* toxin B-IV.**
Kenneth M. Blumenthal and William R. Kem

3332 **Comparison of ^{18}O exchange catalyzed by isoenzymes of carbonic anhydrase.**
Chingkuang Tu and David N. Silverman

3338 **Properties of chitin synthetase in isolated chitosomes from yeast cells of *Mucor rouxii*.**
Jose Ruiz-Herrera, Everardo Lopez-Romero, and Salomon Bartnicki-Garcia

3344 **^{31}P nuclear magnetic resonance of bound substrates of arginine kinase reaction. Chemical shifts in binary, ternary, quaternary, and transition state analog complexes.**
B. D. Nageswara Rao and Mildred Cohn

3351 **DNA polymerase of mitochondria is a γ-polymerase.**
Arthur Bolden, Guido Pedrali Noy, and Arthur Weissbach

3357 **Characterization of plasma membrane adenosine triphosphatase of *Neurospora crassa*.**
Barry J. Bowman and Carolyn W. Slayman

3364 **Identification of folate binding macromolecule in rabbit choroid plexus.**
Reynold Spector

3371 **Kinetic properties of tartrate-resistant acid phosphatase isolated from human spleen with leukemic reticuloendotheliosis.**
Kwok-Wai Lam, Linda Chu Lai, Peter T. Burkart, and Lung T. Yam

3374 **Interaction between *Acanthamoeba* actin and rabbit skeletal muscle tropomyosin.**
Yeu-Zu Yang, David J. Gordon, Edward D. Korn, and Evan Eisenberg

3379 **Effects of chaotropic agents *versus* detergents on dihydroorotate dehydrogenase.**
Henry Jay Forman and James Kennedy

3382 **Pathways of NADPH formation in *Escherichia coli*.**
László N. Csonka and Dan G. Fraenkel

3392 **Use of ^{3}H and ^{14}C double-labeled glucose to assess *in vivo* pathways of amino acid biosynthesis in *Escherichia coli*.**
László N. Csonka

3399 **Repressible alkaline phosphatase from *Thermus aquaticus*. Associated phosphodiesterase activity.**
David H. Smile, Marianne Donohue, Min-fung Yeh, Thomas Kenkel, and John M. Trela

3402 **Leucine catabolism and CO_2 fixation into fatty acids by *Tetrahymena*. Evidence for two pools of CO_2.**
Michael Borowitz, Gregory Raugi, Tony Liang, and Jacob J. Blum

3408 **Reversibility of phosphorylase kinase reaction.**
Yutaka Shizuta, Ramji L. Khandelwal, James L. Maller, Jackie R. Vandenheede, and Edwin G. Krebs

3414 **Participation of hemoglobins A and F in polymerization of sickle hemoglobin.**
Mark A. Goldberg, Michael A. Husson, and H. Franklin Bunn

3422 **Measurements of half-life of rat cardiac myosin heavy chain with leucyl-tRNA used as precursor pool.**
Anne F. Martin, Murray Rabinowitz, Richard Blough, Gwen Prior, and Radovan Zak

3430 **Comparison of turnover of several myofibrillar proteins and critical evaluation of double isotope method.**
Radovan Zak, Anne F. Martin, Gwen Prior, and Murray Rabinowitz

3436 **Homocysteine biosynthesis in green plants. Studies of the homocysteine-forming sulfhydrylase.**
Anne H. Datko, S. Harvey Mudd, and John Giovanelli

3446 **Rabbit globin mRNA. Analysis of T1 RNase digestion fragments.**
Gary V. Paddock, Raymond Poon, Howard C. Heindell, Judith Isaacson, and Winston Salser

3459 **Overall mechanism and rate equation for *O*-acetylserine sulfhydrylases.**
Paul F. Cook and Randolph T. Wedding

3460 **Initial reactions in biosynthesis of teichuronic acid of *Micrococcus lysodeikticus* cell walls.**
Thomas E. Rohr, Gerald N. Levy, Nancy J. Stark, and John S. Anderson

3466 **Reactions of second stage of biosynthesis of teichuronic acid of *Micrococcus lysodeikticus* cell walls.**
Nancy J. Stark, Gerald N. Levy, Thomas E. Rohr, and John S. Anderson

3473 **Metabolism of lipid-linked *N*-acetylglucosamine intermediates.**
Winston W. Chen and William J. Lennarz

3480 **Reconstitution of adenosine triphosphatase of thermophilic bacterium from purified individual subunits.**
Masasuke Yoshida, Nobuhito Sone, Hajime Hirata, and Yasuo Kagawa

3486 **Specificity of 2-keto-3-deoxygluconate-6-P aldolase for open chain form of 2-keto-3-deoxygluconate-6-P. Kinetic and ^{13}C nuclear magnetic resonance studies.**
Christian F. Midelfort, Raj K. Gupta, and H. Paul Meloche

3493 **Liver alcohol dehydrogenase-coenzyme reaction rates.**
Michael C. DeTraglia, Jack Schmidt, Michael F. Dunn, and James T. McFarland

3501 **On the mechanism of glutamine-dependent reductive amination of α-ketoglutarate catalyzed by glutamate synthase.**
Laurane E. Geary and Alton Meister

3509 **Induction of superoxide dismutase by oxygen in neonatal rat lung.**
Jeffrey B. Stevens and Anne P. Autor

3515 **Studies on structure of human erythrocyte phosphofructokinase.**
Naif S. Karadsheh, Kosaku Uyeda, and Robert M. Oliver

3525 **Characterization of polypeptides associated with messenger RNA and its polyadenylate segment in Ehrlich ascites messenger ribonucleoprotein.**
William R. Jeffery

3533 **Dynamic aspects of glucose transport modulation in thymocytes.**
Richard R. Whitesell, Loren H. Hoffman, and David M. Regen

3538 **Determination of the nucleotide sequence of part of the regulatory region for the galactose operon from *Escherichia coli*.**
Jeffrey Sklar, Sherman Weissman, Richard E. Musso, Roberto DiLauro, and Benoit de Crombrugghe

COMMUNICATIONS

3548 **Indoleamine 2,3-deoxygenase. Incorporation of $^{18}O_2^-$ and $^{18}O_2$ into the reaction products.**
Osamu Hayaishi, Fusao Hirata, Takako Ohnishi, Jean-Pierre Henry, Ionel Rosenthal, and Akira Katoh

3551 **Reactivation of lipid-depleted Ca^{2+}-ATPase by a nonionic detergent.**
William L. Dean and Charles Tanford

3554 **Acquisition of increased hormone sensitivity during *in vitro* adipocyte development.**
Charles S. Rubin, Eseng Lai, and Ora M. Rosen

3558 **Inhibition of carbamyl phosphate synthetase by P^1, P^5-di(adenosine 5')-pentaphosphate. Evidence for two ATP binding sites.**
Sue Glenn Powers, Owen W. Griffith, and Alton Meister

3561 **Reduced synthesis of [^{14}C]mannosyl oligosaccharide-lipid by membranes prepared from concanvalin A-resistant Chinese hamster ovary cells.**
Sharon S. Krag, Maria Cifone, Phillips W. Robbins, and Raymond M. Baker

June 10, 1977

3565 ***N*-Bromosuccinimide modification of *lac* repressor protein.**
Ronald B. O'Gorman and Kathleen S. Matthews

3572 **Fluorescence and ultraviolet spectral studies of *lac* repressor modified with *N*-bromosuccinimide.**
Ronald B. O'Gorman and Kathleen S. Matthews

3578 **Alteration of immunological properties of bovine serum albumin by covalent attachment of polyethylene glycol.**
Abraham Abuchowski, Theo van Es, Nicholas C. Palczuk, and Frank F. Davis

3582 **Effect of covalent attachment of polyethylene glycol on immunogenicity and circulating life of bovine liver catalase.**
Abraham Abuchowski, John R. McCoy, Nicholas C. Palczuk, Theo van Es, and Frank F. Davis

3587 **Human thrombins. Production, evaluation, and properties of α-thrombin.**
John W. Fenton, II, Michael J. Fasco, Anne B. Stackrow, David L. Aronson, Andrew M. Young, and J. S. Finlayson

3599 **Negative interactions between amino acid and methylamine/ammonia transport systems of *Saccharomyces cerevisiae*.**
Robert J. Roon, Jane S. Levy, and Fred Larimore

3605 **On the fidelity of DNA replication. Effect of metal activators during synthesis with avian myeloblastosis virus DNA polymerase.**
Michael A. Sirover and Lawrence A. Loeb

3611 **Synthesis and secretion of rat albumin *in vivo*, in perfused liver, and in isolated hepatocytes. Effects of hypophysectomy and growth hormone treatment.**
Richard C. Feldhoff, John M. Taylor, and Leonard S. Jefferson

3617 **Investigation of molecular motion of proteoglycans in cartilage by ^{13}C magnetic resonance.**
Dennis A. Torchia, Marsha A. Hasson, and Vincent C. Hascall

3626 **Reduced concentrations of Z protein in Morris hepatomas. Possible role in abnormal regulation of lipid metabolism.**
Seymour Mishkin, Harold P. Morris, P. V. Narasimha Murthy, and Mitchell L. Halperin

3629 **Calcium fluxes in isolated acinar cells from rat parotid. Effect of adrenergic and cholinergic stimulation.**
Bonnie E. Miller and David L. Nelson

3637 **Imidazole, the ligand *trans* to mercaptide in ferric cytochrome P-450. An EPR study of proteins and model compounds.**
Mordechai Chevion, Jack Peisach, and William E. Blumberg

3646 **Regulation of sterol synthesis in 16 tissues of rat. I. Effect of diurnal light cycling, fasting, stress, manipulation of enterohepatic circulation, and administration of chylomicrons and Triton.**
John M. Andersen and John M. Dietschy

3652 **Regulation of sterol synthesis in 15 tissues of rat. II. Role of rat and human high and low density plasma lipoproteins and of rat chylomicron remnants.**
John M. Andersen and John M. Dietschy

3660 **Biosynthesis of unsaturated fatty acids by bacilli. Hyperinduction and modulation of desaturase synthesis.**
Dennis K. Fujii and Armand J. Fulco

3671 **Human heart TPN-specific isocitrate dehydrogenase. Purification by a rapid three-step procedure.**
Gail Fouré Seelig and Roberta F. Colman

3679 **L-Arginine kinase from tobacco hornworm, *Manduca sexta* (L.). Purification, properties, and interaction with L-canavanine.**
Gerald A. Rosenthal, Douglas L. Dahlman, and George W. Robinson

3684 **Interaction of apoA-II from human high density lipoprotein with lysolecithin.**
Giuseppe Palumbo and Harold Edelhoch

3689 **Characterization of Triton X-100-solubilized prostaglandin E binding protein of rat liver plasma membranes.**
Murray Smigel and Sidney Fleischer

3697 **An interchain disulfide dimer of human growth hormone.**
Urban J. Lewis, Sandra M. Peterson, Lynda F. Bonewald, Boyd K. Seavey, and Willard P. VanderLaan

3703 **Estrogen receptor. Unoccupied sites in nuclei of a breast tumor cell line.**
David T. Zava and William L. McGuire

3709 **Effects of estradiol and nicotinamide adenine dinucleotide phosphate on rate of degradation of uterine glucose-6-phosphate dehydrogenase.**
Edward R. Smith and Kenneth L. Barker

3715 **Liver microsomal epoxide hydrase. Hydration of alkene and arene oxides by membrane-bound and purified enzymes.**
Anthony Y. H. Lu, Donald M. Jerina, and Wayne Levin

3724 **Acidic dissociation constants of folic acid, dihydrofolic acid, and methotrexate.**
Martin Poe

3729 **Purification and properties of a plasminogen activator from pig heart.**
Edmond R. Cole and Fedor W. Bachmann

3738 **Protein modification enzymes associated with the protein-synthesizing complex from rabbit reticulocytes. Protein kinase, phosphoprotein phosphatase, and acetyltransferase.**
Jolinda A. Traugh and Sandra B. Sharp

3745 **Identification of essential arginine residues in glucose-6-phosphate dehydrogenase from *Leuconostoc mesenteroides*.**
H. Richard Levy, Joann Ingulli, and Adeyinka Afolayan

3752 **Amine binding sites in acyl intermediates of transglutaminases. Human blood plasma enzyme (activated Coagulation Factor XIII) and guinea pig liver enzyme.**
Michael Gross, Norma K. Whetzel, and J. E. Folk

3760 **Purification and properties of a membrane-associated, folate-binding protein from *Lactobacillus casei*.**
Gary B. Henderson, Edward M. Zevely, and F. M. Huennekens

3766 **Altered guanine nucleotide hydrolysis as basis for increased adenylate cyclase activity after cholera toxin treatment.**
Susan L. Levinson and Arthur J. Blume

3775 **3(17)β-Hydroxysteroid dehydrogenase of *Pseudomonas testosteroni*. A convenient purification and demonstration of multiple molecular forms.**
Richard M. Schultz, Ernest V. Groman, and Lewis L. Engel

3784 **3(17)β-Hydroxysteroid dehydrogenase of *Pseudomonas testosteroni*. Ligand binding properties.**
Richard M. Schultz, Ernest V. Groman, and Lewis L. Engel

3791 **Purification, composition, molecular weight, and subunit structure of ovine submaxillary mucin.**
Hoyle D. Hill, Jr., Jacqueline A. Reynolds, and Robert L. Hill

3799 **Ovine submaxillary mucin. Primary structure and peptide substrates of UDP-*N*-acetylgalactosamine:mucin transferase.**
Hoyle D. Hill, Jr., Martin Schwyzer, Howard M. Steinman, and Robert L. Hill

3805 **Purification and characterization of sphingomyelinase from human brain.**
Shuichi Yamaguchi and Kunihiko Suzuki

3814 **Sequence of 5′-oligonucleotide of U1 RNA from Novikoff hepatoma cells.**
Tae Suk Ro-Choi and Dale Henning

3821 **Purification and properties of NADPH-dependent aldehyde reductase from human liver.**
Bendicht Wermuth, Jacqueline D. B. Münch, and Jean-Pierre von Wartburg

3829 **The requirement of guanine nucleotides for glucagon stimulation of adenylate cyclase in rat liver plasma membranes.**
Narimichi Kimura and Naokazu Nagata

3836 **Species-specific aggregation factor in sponges. Sialyltransferase associated with aggregation factor.**
Werner E. G. Müller, Josef Arendes, Branko Kurelec, Rudolf K. Zahn, and Isabel Müller

3843 **Characterization of GTP-dependent Met-tRNA$_f$ binding protein.**
Alice Barrieux and Michael G. Rosenfeld

3848 **Endogenous protein kinase inhibitors. Purification, characterization, and distribution in different tissues.**
Andrzej Szmigielski, Alessandro Guidotti, and Erminio Costa

3854 **Compartmentalization of adenosine 3′:5′-monophosphate and adenosine 3′:5′-monophosphate-dependent protein kinase in heart tissue.**
Jackie D. Corbin, Peter H. Sugden, Thomas M. Lincoln, and Stanley L. Keely

3862 **Protein asymmetry in chick synaptosomal plasma membrane.**
Tien-Cheng Chiu and Joseph A. Babitch

3870 **Glucocorticoid induction of growth hormone synthesis in a strain of rat pituitary cells.**
Li-Yuan Yu, Robert J. Tushinski, and F. Carter Bancroft

3876 **Correlation between arginyl residue modification and benzodiazepine binding to human serum albumin.**
Niek Roosdorp, Birgit Wänn, and Ingvar Sjöholm

3881 **Carbonic anhydrase activity in intact red blood cells measured with ^{18}O exchange.**
Nobutomo Itada and Robert E. Forster

3891 **Interaction of glucocorticoid hormones and cyclic nucleotides in induction of tyrosine aminotransferase in cultured hepatoma cells.**
Daryl K. Granner, Agnes Lee, and E. Brad Thompson

3898 **Characterization of the binding of multiplication-stimulating activity to a receptor for growth polypeptides in chick embryo fibroblasts.**
Matthew M. Rechler, Judy M. Podskalny, and S. Peter Nissley

3911 **Human erythrocyte phosphoribosylpyrophosphate synthetase. Subunit analysis and states of subunit association.**
Michael A. Becker, Laurence J. Meyer, William H. Huisman, Cheri Lazar, and William B. Adams

3919 **Human erythrocyte phosphoribosylpyrophosphate synthetase. Dependence of activity on state of subunit association.**
Laurence J. Meyer and Michael A. Becker

3926 **Control of glycoprotein synthesis. Lectin-resistant mutant containing only one of two distinct *N*-acetylglucosaminyltransferase activities present in wild type Chinese hamster ovary cells.**
Saroja Narasimhan, Pamela Stanley, and Harry Schachter

3934 **Amino acid sequence of *Escherichia coli* biotin carboxyl carrier protein (9100).**
Michael R. Sutton, R. Ray Fall, Anibal M. Nervi, Alfred W. Alberts, P. Roy Vagelos, and Ralph A. Bradshaw

3941 **Structural requirements of *Escherichia coli* formylmethionyl transfer ribonucleic acid for ribosome binding and initiation of protein synthesis.**
R. Maya Sundari, Heike Pelka, and LaDonne H. Schulman

3945 **Activation of human Glu-plasminogen to Glu-plasmin by urokinase in presence of plasmin inhibitors. *Streptomyces* leupeptin and human plasma α_1-antitrypsin and antithrombin III (plus heparin).**
Louis Summaria, Irena G. Boreisha, Leonida Arzadon and Kenneth C. Robbins

3952 **Precursors of ribosomal RNA in the cellular slime mold *Dictyostelium discoideum*. Isolation and characterization.**
Bambi Batts-Young, Nancy Maizels, and Harvey F. Lodish

3961 **Isolation of eukaryotic ribosomal proteins. Purification and characterization of 60 S ribosomal subunit proteins L3, L6, L7′, L8, L10, L15, L17, L18, L19, L23′, L25, L27′, L28, L29, L31, L32, L34, L35, L36, L36′, and L37′.**
Kunio Tsurugi, Ekkehard Collatz, Kazuo Todokoro, and Ira G. Wool

3970 **Separation and purification of multiple forms of microsomal cytochrome P-450. Activities of different forms of cytochrome P-450 towards several compounds of environmental interest.**
F. Peter Guengerich

3980 **Interaction of canine and swine lipoproteins with the low density lipoprotein receptor of fibroblasts as correlated with heparin/manganese precipitability.**
Robert W. Mahley and Thomas L. Innerarity

3987 **Interaction of bacteriophage T4 RNA and DNA ligases in joining of duplex DNA at base-paired ends.**
Akio Sugino, Howard M. Goodman, Herbert L. Heyneker, John Shine, Herbert W. Boyer, and Nicholas R. Cozzarelli

3995 **Intestinal basement membrane of *Ascaris suum*. Analysis of polypeptide components.**
Chung-Ho Hung, Mikio Ohno, J. William Freytag, and Billy G. Hudson

4002 **Intestinal basement membrane of *Ascaris suum*. Characterization of carbohydrate units.**
Benigno D. Peczon, Linda J. Wegener, Chung-Ho Hung, and Billy G. Hudson

COMMUNICATIONS

4007 **Inhibition of protein synthesis by Cl^-.**
Lee A. Weber, Eileen D. Hickey, Patricia A. Maroney, and Corrado Baglioni

4011 **Effect of calcium on the recovery and distribution of DNA polymerase-α from cultured human cells.**
Duane C. Eichler, Paul A. Fisher, and David Korn

ADDITIONS AND CORRECTIONS

4015 **The quantitative role of the kidneys in the *in vivo* metabolism of mevalonate. Vol. 252 (1977) 548–554.**
Millie Hughes Wiley, Marilyn M. Howton, and Marvin D. Siperstein

4015 **Incorporation of dietary *cis* and *trans* isomers of octadecenoate in lipid classes of liver and hepatoma. Vol. 252 (1977) 1965–1970.**
Randall Wood, Fred Chumbler, and Rex Wiegand

June 25, 1977

4017 **5-Demethylubiquinone-9-methyltransferase from rat liver mitochondria. Characterization, localization, and solubilization.**
Robert M. Houser and Robert E. Olson

4022 **Chloroplast biogenesis. Net synthesis of protochlorophyllide from magnesium-protoporphyrin monoester by developing chloroplasts.**
James R. Mattheis and Constantin A. Rebeiz

4025 **Metabolism of glycerophospholipids of myelin and microsomes in rat brain. Reutilization of precursors.**
Sheldon L. Miller, Joyce A. Benjamins, and Pierre Morell

4038 **Reduction of metmyoglobin derivatives by dithionite ion.**
Enrique Olivas, Dirk J. A. de Waal, and Ralph G. Wilkins

4043 **Fatty acid enhancement of human serum albumin binding**

properties. A spin label study.
Bohdan J. Soltys and J. Carleton Hsia

4049 **Tetanus toxin interactions with thyroid plasma membranes. Implications for structure and function of tetanus toxin receptors and potential pathophysiological significance.**
Fred D. Ledley, George Lee, Leonard D. Kohn, William H. Habig, and M. Carolyn Hardegree

4056 **Characterization of *Escherichia coli* mutant incapable of maintaining a transmembrane potential. *METC* ECF*^{ts} mutations.**
Michael A. Lieberman, Marcia Simon, and Jen-Shiang Hong

4068 **Anomalies encountered in the classification of histones. An example using wheat germ.**
Mumtaz Fazal and R. David Cole

4073 **Cyclic AMP gradient in migrating pseudoplasmodia of the cellular slime mold *Dictyostelium discoideum*.**
Michael Brenner

4078 **Purification and characterization of guanosine 3′:5′-monophosphate-specific phosphodiesterase from guinea pig lung.**
Craig W. Davis and J. F. Kuo

4085 **Evidence for two distinct CoA binding sites on yeast α-isopropylmalate synthase.**
James W. Tracy and Gunter B. Kohlhaw

4092 **Isolation and characterization of two enzymatic activities from chick embryos which degrade double-stranded RNA.**
Stanton H. Hall and Robert J. Crouch

4098 **Effect of hydrostatic pressure on spectra of heme compounds.**
Quentin H. Gibson and Francis G. Carey

4102 **Effect of hydrostatic pressure on ligand binding to hemoglobin.**
Francis G. Carey, Francis Knowles, and Quentin H. Gibson

4108 **Divalent cation binding properties of bovine brain Ca^{2+}-dependent regulator protein.**
Donald J. Wolff, Philip G. Poirier, Charles O. Brostrom, and Margaret A. Brostrom

4118 **Incorporation of *N*-acetyl-D-glucosamine from UDP-*N*-acetyl-D-glucosamine by isolated membranes of *Bacillus subtilis*. Identification of undecaprenyl poly(*N*-acetylglucosaminyl pyrophosphate).**
George E. Bettinger, Anadi N. Chatterjee, and Frank E. Young

4125 **Role of adenine ring and adenine ribose of nicotinamide adenine dinucleotide in binding and catalysis with alcohol, lactate, and glyceraldehyde-3-phosphate dehydrogenases.**
Robert J. Suhadolnik, Michael B. Lennon, Takayoshi Uematsu, John E. Monahan, and Roland Baur

4134 **ADP-ribosylation of isolated nuclei from HeLa cells, rat liver, fetal rat liver, and Novikoff hepatoma. Effect of nicotinamide adenine dinucleotide analogs on template activity for DNA synthesis, incorporation into nuclear proteins, and a new 1″ → 3′ osidic linkage.**
Robert J. Suhadolnik, Roland Baur, Diane M. Lichtenwalner, Takayoshi Uematsu, Jerry H. Roberts, Swaroop Sudhaker, and Mark Smulson

4145 **Control of vitamin D-dependent calcium-binding protein in rat intestine by growth and fasting.**
M. Elizabeth Hirst Bruns, Edward B. Fliesher, and Louis V. Avioli

4151 **Charges of nicotinamide adenine nucleotides and adenylate energy charge as regulatory parameters of the metabolism in *Escherichia coli*.**
Klaus B. Andersen and Kaspar von Meyenburg

4157 ***Caulobacter crescentus* RNA polymerase. Purification and characterization of holoenzyme and core polymerase.**
Kei Amemiya, C. W. Wu, and Lucille Shapiro

4166 **Solubilization and some characteristics of the follitropin receptor from calf testis.**
Hussein Abou-Issa and Leo E. Reichert, Jr.

4175 **Modulator binding protein. Bovine brain protein exhibiting the Ca^{2+}-dependent association with the protein modulator of cyclic nucleotide phosphodiesterase.**
Jerry H. Wang and Rekha Desai

4185 **Effect of temperature and of cytochalasin B and persantin on the nonmediated permeation of non-electrolytes into cultured Novikoff rat hepatoma cells.**
Jon C. Graff, Robert M. Wohlhueter, and Peter G. W. Plagemann

4191 **Binding of [^{3}H]cytochalasin B and its relationship to inhibition of hexose transport in Novikoff rat hepatoma cells.**
Peter G. W. Plagemann, Jon C. Graff, and Robert M. Wohlhueter

4202 **Isolation, molecular properties, and kinetic characterization of lipoprotein lipase from rat heart.**
Jiwhey Chung and Angelo M. Scanu

4210 **Control of calcium efflux from sarcoplasmic reticulum vesicles by external calcium.**
Arnold M. Katz, Doris I. Repke, Gary Fudyma, and Munekazu Shigekawa

4215 **2-Methylacetoacetate reductase and possible propionyl coenzyme A condensing enzyme activity in branched chain volatile fatty acid synthesis by *Ascaris lumbricoides*.**
Zadila Suarez de Mata, Howard J. Saz, and Daniel J. Pasto

4225 **Electronic and steric factors affecting ligand binding: horse hemoglobins containing 2,4-dimethyldeuteroheme and 2,4-dibromodeuteroheme.**
David W. Seybert, Keith Moffat, Quentin H. Gibson, and C. K. Chang

4232 **Nucleoside diphosphokinase of rat heart mitochondria. Dual localization in matrix and intermembrane space.**
William E. Jacobus and Jonathon J. Evans

4242 **Effect of dietary linoleate on synthesis and degradation of fatty acid synthetase from rat liver.**
Parke K. Flick, Julie Chen, and P. Roy Vagelos

4250 **Relation of turnover of membrane phospholipids to synthesis of membrane-derived oligosaccharides of *Escherichia coli*.**
Howard Schulman and Eugene P. Kennedy

4256 **Nucleotide sequence of *Thermus aquaticus* ribosomal 5 S ribonucleic acid. Sequence homologies in thermophilic organisms.**
Ross N. Nazar and Alastair T. Matheson

4262 **Inhibitors of glucose-1,6-bisphosphate synthase.**
Irwin A. Rose, Jessie V. B. Warms, and Lee-Jun Wong

4269 **Purification and subunit composition of guanosine 3′:5′-monophosphate-dependent protein kinase from bovine lung.**
Thomas M. Lincoln, William L. Dills, Jr., and Jackie D. Corbin

4276 **Kinetics and equilibrium of the inactivation of ornithine transcarbamylases by pyridoxal 5′-phosphate.**
Margaret Marshall and Philip P. Cohen

4287 **Preparation and properties of N^6-monobutyryl adenosine 5′-monophosphate. A major hepatic metabolite of N^6,$O^{2'}$-dibutyryl cyclic adenosine 3′:5′-monophosphate.**
William L. Dills, Jr., Timothy D. West, and Donal A. Walsh

4293 **Photolabeling reagent for thiol enzymes. Studies on rabbit muscle creatine kinase.**
Jack Henkin

4298 **Manganese- and magnesium-dependent activities of soluble and particulate guanylate cyclase from sheep kidney outer medulla.**
William H. Frey II, Bruce M. Boman, Dawn Newman, and Nelson D. Goldberg

4305 **Factors regulating macrophage production and growth. Purification and some properties of the colony stimulating factor from medium conditioned by mouse L cells.**
E. Richard Stanley and Patricia M. Heard

4313 **Further studies of mode of action of lipolytic enzymes.**
Jacques Rietsch, Franc Pattus, Pierre Desnuelle, and Robert Verger

4319 **Effects of colipase on hydrolysis of monomolecular films by lipase.**
Robert Verger, Jacques Rietsch, and Pierre Desnuelle

4326 **Limited pepsin digestion of human plasma albumin.**
Joy Heaney-Kieras and Te Piao King

4330 **Increase in the lipid intermediate pathway of protein glycosylation during hen oviduct differentiation.**
John J. Lucas and Elizabeth Levin

4337 **Characterization of a novel ribonucleotide-polymerizing enzyme from a fungus, *Histoplasma capsulatum*.**
George Boguslawski, William A. Zehring, Robyn R. Meyer, and James S. Parr

4347 **Studies on the cyclic GMP-dependent protein kinase from bovine aorta. Possible existence of a catalytic subunit.**
Mamoru Shoji, Janice G. Patrick, James Tse, and J. F. Kuo

4354 **Glucocorticoid control of the development of tryptophan oxygenase in the young rat.**
Michael D. Roper and John M. Franz

4361 **Mechanism of oxidation of nitroethane by glucose oxidase.**
David J. T. Porter and Harold J. Bright

4371 **Platelet myosin. Localization of the rod myosin fragment and effect of its antibodies on platelet function.**
Elena G. Puszkin, Rosalba Maldonado, Theodore H. Spaet, and Marjorie B. Zucker

4379 **Role of ω oxidation of fatty acids in formation of the acetyl unit for acetylation.**
Edward Hemmelgarn, Kozhikot Kumaran, and Bernard R. Landau

4384 **Purification and properties of a protein required for sodium azide activation of guanylate cyclase.**
Chandra K. Mittal, Hiroshi Kimura, and Ferid Murad

4391 **Glucuronosyl diacylglycerol of *Pseudomonas diminuta* ATCC 11568. *In vitro* biosynthesis from UDP-glucuronate and diacylglycerol.**
J. Michael Shaw and Ronald A. Pieringer

4395 **Phosphatidylmonoglucosyl diacylglycerol of *Pseudomonas diminuta* ATCC 11568. *In vitro* biosynthesis from phosphatidylglycerol and glucosyl diacylglycerol.**
J. Michael Shaw and Ronald A. Pieringer

4402 **Studies of the mechanism of tunicamycin inhibition of IgA and IgE secretion by plasma cells.**
Scot Hickman, Anthony Kulczycki, Jr., Richard G. Lynch, and Stuart Kornfeld

4409 **Subunit structure of external invertase from *Saccharomyces cerevisiae*.**
Robert B. Trimble and Frank Maley

COMMUNICATIONS

4413 **Enzymatic oxidation of acetyltryptophanamide and tryptophan-containing peptides. Formation of dehydrotryptophan.**
Yoichi Noda, Katsuji Takai, Takashi Tokuyama, Shuh Narumiya, Hiroshi Ushiro, and Osamu Hayaishi

4416 **Phosphoprotein phosphatase activity associated with the cytoplasmic membrane of *Salmonella typhimurium* and *Escherichia coli*.**
Robert C. Tuttle and Milton H. Saier, Jr.

4418 **^{19}F nuclear magnetic resonance of 5-fluorouridine-substituted tRNA$_1^{Val}$ from *Escherichia coli*.**
Jack Horowitz, James Ofengand, Walter E. Daniel, Jr., and Mildred Cohn

4421 **Effect of glucagon on hepatic malonyl coenzyme A concentration and on lipid synthesis.**
George A. Cook, Richard C. Nielsen, Richard A. Hawkins, Myron A. Mehlman, M. R. Lakshmanan, and Richard L. Veech

4425 **Altered molecular species of human interferon produced in the presence of inhibitors of glycosylation.**
Edward A. Havell, Shudo Yamazaki, and Jan Vilček

4428 **Inosine uptake by cultured fibroblasts from normal and purine nucleoside phosphorylase-deficient humans.**
Amos Cohen and David W. Martin, Jr.

iii Cumulative author index. Numbers 1 through 12.

July 10, 1977

COMMUNICATIONS

4431 **Evidence that purified liver microsomal cytochrome P-450 is a one-electron acceptor.**
Julian A. Peterson, Ronald E. White, Yukio Yasukochi, Marguerite L. Coomes, David H. O'Keeffe, Richard E. Ebel, Bettie Sue S. Masters, David P. Ballou, and Minor J. Coon

4435 **Release factor binding to ribosome requires an intact 16 S rRNA 3′ terminus.**
C. Thomas Caskey, L. Bosch, and David S. Konecki

4438 **On the apparent inhibition of intramolecular activation of pepsinogen by pepsin substrates.**
Peter McPhie

4440 **On the role of the tubulin nonexchangeable GTP site in bovine neurotubule assembly.**
Robert K. MacNeal and Daniel L. Purich

4443 **Yeast hexokinase mutants.**
Juana-Maria Gancedo, Drago Clifton, and Dan H. Fraenkel

4445 **Enzymatic and ^{31}P nuclear magnetic resonance study of adenylate kinase-catalyzed stereospecific phosphorylation of adenosine 5′-phosphorothioate.**
Kwan-Fu Rex Sheu and Perry A. Frey

4449 **Molecular interactions between lecithin and sphingomyelin. Temperature- and composition-dependent phase separation.**
Steven H. Untracht and G. Graham Shipley

4458 **Metabolism of thyroid hormones by cultured monkey hepatocarcinoma cells. Nonphenolic ring deiodination and sulfation.**
Kenji Sorimachi and Jacob Robbins

4464 **Mechanistic features of the D-amino acid oxidase reaction studied by double stopped flow spectrophotometry.**
David J. T. Porter, Judith G. Voet, and Harold J. Bright

4474 ***De novo* synthesis and glycosylation of the MOPC-46B mouse immunoglobulin light chain in cell-free extracts.**
Philip Tucker and Sidney Pestka

4487 **Mutants of *Escherichia coli* defective in membrane phospholipid synthesis. Effects of cessation and reinitiation of phospholipid synthesis on macromolecular synthesis and phospholipid turnover.**
Thomas M. McIntyre, Brian K. Chamberlain, Robert E. Webster, and Robert M. Bell

4494 **High resolution crystal structures of yeast hexokinase complexes with substrates, activators, and inhibitors. Evidence for an allosteric control site.**
Thomas A. Steitz, Wayne F. Anderson, Robert J. Fletterick, and Charles M. Anderson

4501 **Specific cytosol-binding protein for 1,25-dihydroxyvitamin D_3 in rat intestine.**
Barbara E. Kream, Sachiko Yamada, Heinrich K. Schnoes, and Hector F. DeLuca

4506 **Activation of methionine for transmethylation. Purification of the S-adenosylmethionine synthetase of bakers' yeast and its separation into two forms.**
Peter K. Chiang and Giulio L. Cantoni

4514 **Characterization of reticulocyte release factor.**
David S. Konecki, Kirk C. Aune, Warren Tate, and C. Thomas Caskey

4521 **Antibody as immunological probe for studying refolding of bovine serum albumin. Refolding within each domain.**
Judy M. Teale and David C. Benjamin

4527 **Interactions of tryptophan synthetase subunits in *Escherichia coli* containing mutationally altered β_2 subunits.**
Raymond D. Mosteller, Ruth V. Goldstein, and Kaoru R. Nishimoto

4533 **Sialic acid. A calcium-binding carbohydrate.**
Larry W. Jaques, Ellen B. Brown, Joy M. Barrett, Wallace S. Brey, Jr., and William Weltner, Jr.

4539 **Steady state kinetics of energy-dependent Ca^{2+} uptake in rat liver mitochondria.**
Susan M. Hutson

4546 **Treatment of enzyme kinetic data. Extension of the concerted allosteric model to the two-substrate case.**
Donald W. Pettigrew and Carl Frieden

4552 **Studies on sulfhydryl group modification of mitochondrial pyridine dinucleotide transhydrogenase.**
Steven G. O'Neal and Ronald R. Fisher

4557 **Circular dichroic and perturbation spectra of aromatic**

chromophores in rabbit tropomyosin. Topography of tyrosine residues.
Béla Nagy

4564 **Subunit structure of chloroplast Photosystem I reaction center.**
Carmela Bengis and Nathan Nelson

4570 **Glucose branches in chondroitin sulfates from squid cartilage.**
Osami Habuchi, Kuniko Sugiura, Nobuki Kawai, and Sakaru Suzuki

4577 **Efflux of potassium induced by Dio-9, a plasma membrane ATPase inhibitor in the yeast *Schizosaccharomyces pombe*.**
Françoise Foury, Marc Boutry, and André Goffeau.

4584 **Effect of exogenous ATP on the permeability properties of transformed cultures of mouse cell lines.**
Enrique Rozengurt, Leon A. Heppel, and Ilan Friedberg

4591 **α-Aminoadipate aminotransferase and kynurenine aminotransferase. Purification, characterization, and further evidence for identity.**
Michael C. Tobes and Merle Mason

4600 **Bovine thioredoxin system. Purification of thioredoxin reductase form calf liver and thymus and studies of its function in disulfide reduction.**
Arne Holmgren

4607 **Effect of estradiol on rat uterus DNA-dependent RNA polymerases. Studies with whole nuclei.**
Marie-Madeleine Bouton, Jean-Claude Courvalin, and Etienne-Emile Baulieu

4613 **Nongenetic heterogeneity of mouse β-galactosidase.**
Aldons J. Lusis, Gail A. M. Breen, and Kenneth Paigen

4619 **Tuna cytochrome *c* at 2.0 Å resolution. III. Coordinate optimization and comparison of structures.**
Neil Mandel, Gretchen Mandel, Benes L. Trus, John Rosenberg, George Carlson, and Richard E. Dickerson

4637 **Indoleamine 2,3-dioxygenase. Characterization and properties of enzyme·O_2^- complex.**
Fusao Hirata, Takako Ohnishi, and Osamu Hayaishi

4643 **Indoleamine 2,3-dioxygenase. Potassium superoxide as substrate.**
Takako Ohnishi, Fusao Hirata, and Osamu Hayaishi

4648 **Properties and subunit structure of aspartokinase II from *Bacillus subtilis* VB217.**
Don Moir and Henry Paulus

4655 **Immunological and chemical comparison of the nonidentical subunits of aspartokinase II from *Bacillus subtilis* VB217.**
Don Moir and Henry Paulus

4662 **Comparison of *in vivo* and *in vitro* properties of cyclic adenosine 3′:5′-monophosphate phosphodiesterase of amphibian oocytes.**
Catherine C. Allende, Rodrigo Bravo, and Jorge E. Allende

4667 **Measurement of rate of rat liver sterol synthesis *in vivo* using tritiated water.**
M. R. Lakshmanan and Richard L. Veech

4674 **Angiotensin homologs and analogs as inhibitors of rabbit pulmonary angiotensin-converting enzyme.**
Bie-Shung Tsai and Michael J. Peach

4682 **Detergent solubilization, purification, and separation of specificities of HLA antigens from a cultured human lymphoblastoid line RPMI 4265.**
Timothy A. Springer, Dean L. Mann, Anthony L. DeFranco, and Jack L. Strominger

4694 **Subunit and disulfide structure of monomeric and dimeric forms of detergent-soluble HLA antigens.**
Timothy A. Springer, Richard J. Robb, Cox Terhorst, and Jack L. Strominger

4701 **Structure and thermodynamic properties of high density lipoprotein recombinants.**
Alan R. Tall, Donald M. Small, Richard J. Deckelbaum, and G. Graham Shipley

4712 **Ontogenetic expression of polycyclic aromatic compound-inducible monooxygenase activities and forms of cytochrome P-450 in rabbit. Evidence for temporal control and organ specificity of two genetic regulatory systems.**
Steven A. Atlas, Alan R. Boobis, James S. Felton, Snorri S. Thorgeirsson, and Daniel W. Nebert

4722 **Ovalbumin gene. Action of restriction endonucleases upon DNA coding sequence.**
John J. Monahan, Savio L. C. Woo, Charles D. Liarakos, and Bert W. O'Malley

4729 **Two-dimensional electrophoretic analysis of polynucleosomes.**
Richard D. Todd and William T. Garrard

4739 **Five α-D-galactopyranosyl-binding isolectins from *Bandeiraea simplicifolia* seeds.**
Lee A. Murphy and Irwin J. Goldstein

4743 **Chemical cross-linking studies of beef heart mitochondrial coupling factor 1.**
Barbara A. Baird and Gordon G. Hammes

July 25, 1977

COMMUNICATIONS

4749 **Studies of the lipid phase transitions of *Escherichia coli* by high sensitivity differential scanning calorimetry.**
Meyer B. Jackson and Julian M. Sturtevant

4752 **Phosphorylation of the 18,000-dalton light chain of myosin during a single tetanus of frog muscle.**
Kate Bárány and Michael Bárány

4755 **Reductive titration of cytochrome P-450 in rat liver microsomes.**
David Y. Cooper, Mott D. Cannon, Heinz Schleyer, and Otto Rosenthal

4758 **Interaction of manganese with bovine Factor X.**
S. Paul Bajaj, Robert Byrne, Thomas Nowak, and Francis J. Castellino

4762 **Deoxyribonucleic acid replication in human diploid fibroblasts stimulated to proliferate.**
James W. Rawles, Jr. and James M. Collins

4767 **Evidence for a thioether linkage between the flavin and polypeptide chain of *Chromatium* cytochrome c_{552}.**
William C. Kenney and Thomas P. Singer

4773 **Studies on *Limulus* amoebocyte lysate II. Purification of the coagulogen and the mechanism of clotting.**
Joseph Y. Tai, Robert C. Seid, Jr., Richard D. Huhn, and Teh-Yung Liu

4777 **Glycosaminoglycan synthesis by cultured human skin fibroblasts after transformation with simian virus 40.**
John J. Hopwood and Albert Dorfman

4786 **Novel properties of *Escherichia coli* exonuclease III.**
Ranajit Roychoudhury and Ray Wu

4790 **Purification and properties of tRNA(adenine-1)-methyltransferase from rat liver.**
Jane M. Glick and Phoebe S. Leboy

4796 **Re-evaluation of the kinetic mechanism of the choline acetyltransferase reaction.**
Louis B. Hersh and Martha Peet

4803 **Formation of singlet oxygen by the myeloperoxidase-mediated antimicrobial system.**
Henry Rosen and Seymour J. Klebanoff

4811 **Acetylcholine receptor. Responses to drug binding.**
Alfred Maelicke, Bernard W. Fulpius, Robert P. Klett, and E. Reich

4831 **Isolation and characterization of proteoglycans from bovine aorta.**
Bhandaru Radhakrishnamurthy, Harold A. Ruiz, Jr., and Gerald S. Berenson

4842 **Exchange of cytochrome b_5 between phospholipid vesicles.**
Mark A. Roseman, Peter W. Holloway, Michael A. Calabro, and Thomas E. Thompson

4850 **Effect of N^6,$O^{2'}$-dibutyryl adenosine 3′:5′-monophosphate on the release of surface proteins by murine neuroblastoma cells.**

Robert Truding and Pierre Morell

4855 **PZ-peptidase from chick embryos. Purification, properties, and action on collagen peptides.**
Teresa I. Morales and J. Frederick Woessner, Jr.

4861 **Receptor-mediated uptake of low density lipoprotein and utilization of its cholesterol for steroid synthesis in cultured mouse adrenal cells.**
Jerry R. Faust, Joseph L. Goldstein, and Michael S. Brown

4872 **Cyclic 3′:5′-nucleotide phosphodiesterase. Stimulation of bovine brain cytoplasmic enzyme by lysophosphatidylcholine.**
Anne-Lise Pichard and Wai Yiu Cheung

4876 **Ca^{2+} ions and the stimulation of 3-*O*-methylglucose transport by uncouplers in rat thymocytes.**
John P. Reeves

4882 **Studies on cobalt myoglobins and hemoglobins. Interaction of sperm whale myoglobin and *Glycera* hemoglobin with molecular oxygen.**
Masao Ikeda-Saito, Tetsutaro Iizuka, Haruhiko Yamamoto, Fredrick J. Kayne, and Takashi Yonetani

4888 **Role of multiple basic residues in determining the substrate specificity of cyclic AMP-dependent protein kinase.**
Bruce E. Kemp, Donald J. Graves, Eliezer Benjamini, and Edwin G. Krebs

4895 **Lipid A mutants of *Salmonella typhimurium*. Characterization of a conditional lethal mutant in 3-deoxy-D-mannooctulosonate-8-phosphate synthetase.**
Paul D. Rick and M. J. Osborn

4904 **Lipid A mutants of *Salmonella typhimurium*. Purification and characterization of a lipid A precursor produced by a mutant in 3-deoxy-D-mannooctulosonate-8-phosphate synthetase.**
Paul D. Rick, Leslie W.-M. Fung, Chien Ho, and M. J. Osborn

4913 **Amino acid sequence of phospholipase A_2-α from the venom of *Crotalus adamanteus*. A new classification of phospholipases A_2 based upon structural determinants.**
Robert L. Heinrikson, Elaine T. Krueger, and Pamela S. Keim

4922 **Intestinal surface amino-oligopeptidases. I. Isolation of two weight isomers and their subunits from rat brush border.**
Gary M. Gray and Nilda A. Santiago

4929 **Intestinal surface amino-oligopeptidases. II. Substrate kinetics and topography of the active site.**
Robert K. Kania, Nilda A. Santiago, and Gary M. Gray

4935 **Study of the transfer RNAs coded by T2, T4, and T6 bacteriophages.**
Suresh M. Desai and Samuel B. Weiss

4942 **Primary structure of human prethrombin 2 and α-thrombin.**
Ralph J. Butkowski, Jacques Elion, Michael R. Downing, and Kenneth G. Mann

4958 **Role of coenzyme in aminotransferase turnover.**
Kai-Lin Lee, Paul L. Darke, and Francis T. Kenney

4962 **Histone H3 disulfide reactions in Interphase, mitotic, and native chromatin.**
William T. Garrard, Peter Nobis and Ronald Hancock

4968 **Titration behavior and tautomeric states of individual histidine residues of myoglobins. Application of natural abundance carbon 13 nuclear magnetic resonance spectroscopy.**
David J. Wilbur and Adam Allerhand

4976 **Use of *N*-chlorosuccinimide/urea for the selective cleavage of tryptophanyl peptide bonds in proteins. Cytochrome *c*.**
Michael A. Lischwe and Michael T. Sung

4981 **Adenovirus chromatin I. Isolation and characterization of the major core protein VII and precursor Pro-VII.**
Michael T. Sung, Michael A. Lischwe, James C. Richards, and Keiichi Hosokawa

4988 ***In vitro* reconstitution of demolybdosulfite oxidase by molybdate.**
Harold P. Jones, Jean L. Johnson, and K. V. Rajagopalan

4994 ***In vitro* reconstitution of demolybdosulfite oxidase by a molybdenum cofactor from rat liver and other sources.**
Jean L. Johnson, Harold P. Jones, and K. V. Rajagopalan

5004 **Mechanism of action of ethanolamine ammonia-lyase, an adenosylcobalamin-dependent enzyme. Interaction between the enzyme and a postulated organocobalamin intermediate.**
Jan S. Krouwer and Bernard M. Babior

5010 ***De novo* alanine synthesis in isolated oxygen-deprived rabbit myocardium.**
Heinrich Taegtmeyer, Myron B. Peterson, Vanaja V. Ragavan, Alan G. Ferguson, and Michael Lesch

5019 **Human β-globin messenger RNA. I. Nucleotide sequences derived from complementary RNA.**
Charles A. Marotta, Bernard G. Forget, Michel Cohen-Solal, John T. Wilson, and Sherman M. Weissman

5032 **Human β-globin messenger RNA. II. Nucleotide sequences derived from ^{125}I-labeled globin messenger RNA.**
Michel Cohen-Solal, Bernard G. Forget, Wolf Prensky, Charles A. Marotta, and Sherman M. Weissman

5040 **Human β-globin messenger RNA. III. Nucleotide sequences derived from complementary DNA.**
Charles A. Marotta, John T. Wilson, Bernard G. Forget, and Sherman M. Weissman

5054 **The purine nucleotide cycle. Studies of ammonia production by skeletal muscle *in situ* and in perfused preparations.**
Michael N. Goodman and John M. Lowenstein

5061 **Hepatic microsomal dealkylations. Inhibition by a tyrosine·copper (II) complex provided with superoxide dismutase activity.**
Christoph Richter, Angelo Azzi, Ulrich Weser, and Albrecht Wendel

5067 **Independent binding of ligands to human serum albumin.**
Rolf Brodersen, Torgny Sjödin, and Ingvar Sjöholm

5073 **Purification and some properties of human 4-hydroxyphenylpyruvate dioxygenase (I).**
Bengt Lindblad, Göran Lindstedt, Sven Lindstedt, and Marianne Rundgren

5085 **Multiple forms of human 4-hydroxyphenylpyruvate dioxygenase (II).**
Marianne Rundgren

5094 **Steady state kinetics of 4-hydroxyphenylpyruvate dioxygenase from human liver (III).**
Marianne Rundgren

5100 **Rat plasma prealbumin. Isolation and partial characterization.**
Mahamad Navab, A. Krishna Mallia, Yoshikazu Kanda, and DeWitt S. Goodman

5107 **Rat plasma prealbumin. Metabolic studies on effects of vitamin A status and on tissue distribution.**
Mahamad Navab, John Edgar Smith, and DeWitt S. Goodman

5115 **Studies on a defective variant of simian virus 40 that is substituted with DNA sequences derived from monkey DNA. I. Origin, properties, and purification.**
G. R. Koteswara Rao and Maxine F. Singer

5124 **Studies on a defective variant of simian virus 40 that is substituted with DNA sequences derived from monkey. II. Structure of DNA.**
G. R. Koteswara Rao and Maxine F. Singer

5135 **Amino acid sequence of the L-arabinose-binding protein from *Escherichia coli* B/r.**
Robert W. Hogg and Mark A. Hermodson

5142 **The 2.8-Å resolution structure of the L-arabinose-binding protein from *Escherichia coli*. Polypeptide chain folding, domain similarity, and probable location of sugar-binding site.**
Florante A. Quiocho, Gary L. Gilliland, and George N. Phillips, Jr.

5150 **Membrane polypeptides co-induced with the bacterial bioluminescent system.**
Zvi Ne'eman, Shimon Ulitzur, Daniel Branton, and J. Woodland Hastings

5155 **Adenosine 3′:5′-monophosphate-regulated phosphoprotein system of neuronal membranes. I. Solubilization, purification, and some properties of an endogenous phosphoprotein.**
Tetsufumi Ueda and Paul Greengard

5164 **Adenosine 3′:5′-monophosphate-regulated phosphoprotein system of neuronal membranes. II. Solubilization, purification, and some properties of an endogenous adenosine 3′:5′-monophosphate-dependent protein kinase.**
Isao Uno, Tetsufumi Ueda, and Paul Greengard

ADDITIONS AND CORRECTIONS

5175 **Solubility and diffusion coefficient of adenosine 3′:5′-monophosphate. Vol. 252 (1977) 864–865.**
Martin Dworkin and Kenneth H. Keller

5175 **Codon-anticodon recognition in the valine codon family. Vol. 252 (1977) 471–478.**
Samir K. Mitra, Florentyna Lustig, Bengt Åkesson, Ulf Lagerkvist, and Lars Strid

5175 **Studies on the cyclic 3′:5′-AMP-stimulated pig liver protein kinase reaction with pyruvate kinase as substrate. Vol. 252 (1977) 613–619.**
Lars Berglund, Olle Ljungström, and Lorentz Engström

August 10, 1977

COMMUNICATIONS

5177 ***Escherichia coli* ribosomal protein S1 recognizes two sites in bacteriophage Qβ RNA.**
Susan Goelz and Joan A. Steitz

5180 **Reversible activation of hepatic adenylate cyclase by guanyl-5′-yl-(α,β-methylene)diphosphonate and guanyl-5′-yl imidodiphosphate.**
Constantine Londos, Michael C. Lin, Ann F. Welton, Pramod M. Lad, and Martin Rodbell

5183 **A novel nuclear relaxation approach for estimating distance between enzyme- and nucleotide-bound metal ions at the catalytic site of pyruvate kinase.**
Raj K. Gupta

5186 **7-Ketocholesterol. Its effects on hepatic cholesterogenesis and its hepatic metabolism *in vivo* and *in vitro*.**
Sandra K. Erickson, Allen D. Cooper, Suzanne M. Matsui, and R. Gordon Gould

5194 **α-*N*-Acetylgalactosaminidase from the limpet, *Patella vulgata*.**
Yutaka Uda, Su-Chen Li, Yu-Teh Li, and John M. McKibbin

5201 **Inhibition by lead ion of *Electrophorus* electroplax (Na^+ + K^+)-adenosine triphosphatase and K^+-*p*-nitrophenylphosphatase.**
George J. Siegel and Suzanne M. Fogt

5206 **α-Hydroxylation of fatty acids in brain. Substrate specificity and deuterium isotope effect.**
Saood Murad, Robert H. K. Chen, and Yasuo Kishimoto

5211 **Substrate and effector specificity of a guanosine 3′:5′-monophosphate phosphodiesterase from rat liver.**
Joel Moss, Vincent C. Manganiello, and Martha Vaughan

5216 **Uptake of retinol and retinoic acid from serum retinol-binding protein by retinal pigment epithelial cells.**
Chi-Ching Chen and Joram Heller

5222 **Utilization of L(+)-3-hydroxybutyrate, D(−)-3-hydroxybutyrate, acetoacetate, and glucose for respiration and lipid synthesis in the 18-day-old rat.**
Robert J. Webber and John Edmond

5227 **The second bromoacetazolamide reactive site of bovine carbonic anhydrase B.**
James W. Wells, András Nagy, Stephen I. Kandel, Marianne Kandel, and Allen G. Gornall

5239 **Resistance of soybean trypsin inhibitor (Kunitz) to denaturation by guanidinium chloride.**
Bonnie Strayer Leach and Wayne W. Fish

5244 **Purification and characterization of *Xenopus laevis* vitellogenin messenger RNA.**
David J. Shapiro and Hollis J. Baker

5251 **L-Histidinol inhibits specifically and reversibly protein and ribosomal RNA synthesis in mouse L cells.**
Robert C. Warrington, N. Wratten, and R. Hechtman

5258 **Synthesis of plasma lipoproteins by the isolated perfused liver from the fasted and fed pig.**
Noriaki Nakaya, Byung Hong Chung, and O. David Taunton

5262 **Spin label study of the sulfhydryl groups of sarcoplasmic reticulum.**
Byung P. Yu, E. J. Masoro, J. Downs, and D. Wharton

5267 **A novel metabolic fate of arginine in *Streptomyces eurocidicus*. Partial resolution of the pathway and identification of an intermediate.**
Akio Nakane, Taro Nakamura, and Yoshitomo Eguchi

5274 **Ovine lutropin subunit isolation. Comparison of salt precipitation and countercurrent distribution procedures.**
Wan-Kyng Liu, Mario Ascoli, and Darrell N. Ward

5280 **Isolation and recombination of ovine lutropin subunits with complete recovery of biological activity.**
Mario Ascoli, Wan-Kyng Liu, and Darrell N. Ward

5287 **Biosynthesis of urea. Molecular and regulatory properties of crystalline argininosuccinate synthetase.**
Olga Rochovansky, Hiroko Kodowaki, and S. Ratner

5295 **Regulation of prostaglandin receptors by prostaglandins and guanine nucleotides in frog erythrocytes.**
Robert J. Lefkowitz, Debra Mullikin, Catherine L. Wood, Thomas B. Gore, and Chhabirani Mukherjee

5304 **Studies on the kinetic mechanism of lysine-sensitive aspartokinase.**
Jei-fu Shaw and W. Grady Smith

5310 **Regulation of protein degradation in normal and transformed human cells. Effects of growth state, medium composition, and viral transformation.**
Matthews O. Bradley

5316 **Natural occurrence and chemical modification of proteinase B inhibitors from yeast.**
Peter Bünning and Helmut Holzer

5324 **Separation of effects of adenosine on energy metabolism from those on cyclic AMP in rat thymic lymphocytes.**
Steven K. Nordeen and Donald A. Young

5332 **Threonine-sensitive homoserine dehydrogenase and aspartokinase activities of *Escherichia coli* K12. Kinetic and spectroscopic effects upon binding of serine and threonine.**
Jean-Marc Costrejean and Paolo Truffa-Bachi

5337 **Clostridial glycine reductase complex. Purification and characterization of the selenoprotein component.**
Joyce E. Cone, Rafael Martin del Rio, and Thressa C. Stadtman

5345 **Regulatory properties of yeast hexokinase PII. Metal specificity, nucleotide specificity, and buffer effects.**
Bruce A. Peters and Kenneth E. Neet

5350 **Purineless death: ribosomal RNA turnover in a purine-starved ade⁻ mutant of Chinese hamster cells.**
G. Sriram and Milton W. Taylor

5356 **Protein kinases in brown adipose tissue of developing rats. Electrophoretic separation and assay of soluble protein kinases on polyacrylamide gels and a study of their properties and changes during development.**
Brian L. Knight and Josef P. Skala

5363 **Human erythrocyte galactose-1-phosphate uridylyltransferase. Evidence for a uridylyl-enzyme intermediate by kinetic and exchange reaction studies.**
Helene B. Markus, Joseph W. Wu, Francee S. Boches, Thomas A. Tedesco, William J. Mellman, and Roland C. Kallen

5370 **Reaction of DNA with glycidaldehyde. Isolation and identification of a deoxyguanosine reaction product.**
Benjamin L. Van Duuren and Gordon Loewengart

5372 **Regulation by calcium ions of pyruvate carboxylation, pyruvate transport, and adenine nucleotide transport in isolated rat liver mitochondria.**
Mary Foldes and Gregory J. Barritt

5381 **Purification and properties of a soluble protein activator of rat liver squalene epoxidase.**
John B. Ferguson and Konrad Bloch

5386 **Isolation and amino acid sequence of COOH-terminal fragments from the β subunit of human choriogonadotropin.**
Steven Birken and Robert E. Canfield

5393 **Human chorionic gonadotropin. Amino acid sequence of the hormone-specific COOH-terminal region.**
Henry T. Keutmann and Roberta M. Williams

5398 **Purification and characterization of an ω protein from *Micrococcus luteus*.**
Viola T. Kung and James C. Wang

5403 **Binding of *Escherichia coli* RNA polymerase to T7 DNA. Displacement of holoenzyme from promoter complexes by heparin.**
Suzanne R. Pfeffer, Stephen J. Stahl, and Michael J. Chamberlin

5408 **Oligosaccharides of human milk. Structural studies of two new octasaccharides, difucosyl derivatives of para-lacto-*N*-hexaose and para-lacto-*N*-neohexaose.**
Katsuko Yamashita, Yoko Tachibana, and Akira Kobata

5412 **Progesterone-induced messenger RNA. Translation, purification, and preliminary characterization of uteroglobin mRNA.**
M. Atger and E. Milgrom

5419 **CDP-diglyceride:inositol transferase from rat liver. Purification and properties.**
Tadaomi Takenawa and Kohji Egawa

5424 **Presence of a glucuronic acid-containing carbohydrate unit in human thyroglobulin.**
Mary Jane Spiro

5431 **Characterization of the glutamine site of *Escherichia coli* guanosine 5′-monophosphate synthetase.**
Howard Zalkin and Cathy D. Truitt

5437 **Ovotransferrin subfractionation dependent upon carbohydrate chain differences.**
Hito Iwase and Kyoko Hotta

5444 **Isolation and properties of β-D-galactoside-specific lectin from chick embryo thigh muscle.**
Halina Den and David A. Malinzak

5449 **Nature of the lectin-induced activation of plasma membrane Mg^{2+} ATPase.**
John R. Riordan, Maria Slavik, and Norbert Kartner

5456 **Cytochalasin B binding sites and glucose transport carrier in human erythrocyte ghosts.**
Chan Y. Jung and Amrit L. Rampal

5464 **High affinity cytochalasin B binding to red cell membrane proteins which are unrelated to sugar transport.**
Shin Lin and Clifford E. Snyder, Jr.

5472 **α-Adrenergic receptors in rat parotid cells. I. Correlation of [^{3}H]dihydroergocryptine binding and catecholamine-stimulated potassium efflux.**
Warren. J. Strittmatter, James N. Davis, and Robert J. Lefkowitz

5478 **α-Adrenergic receptors in rat parotid cells. II. Desensitization of receptor binding sites and potassium release.**
Warren J. Strittmatter, James N. Davis, and Robert J. Lefkowitz

5483 **Inhibition of rat liver acetyl coenzyme A carboxylase by long chain acyl coenzyme A and fatty acid. Modulation by fatty acid-binding protein.**
Michael A. Lunzer, Joan A. Manning, and Robert K. Ockner

5488 **Mechanism of the apparent regulation of *Escherichia coli* unsaturated fatty acid synthesis by exogenous oleic acid.**
Mary L. Polacco and John E. Cronan, Jr.

5491 **Studies on the depolarization of the *Escherichia coli* cell membrane by colicin E1.**
J. Michael Gould and William A. Cramer

5498 **An infrared study of CO binding to heart cytochrome *c* oxidase and hemoglobin A. Implications re O_2 reactions.**
Shinya Yoshikawa, Miles G. Choc, Mary C. O'Toole, and Winslow S. Caughey

5509 **5-Methylcytosine content of rat hepatoma DNA substituted with bromodeoxyuridine.**
Judith Singer, Robert H. Stellwagen, Joan Roberts-Ems, and Arthur D. Riggs

5514 **Reaction of a lipid-soluble, unsymmetrical, cleavable, cross-linking reagent with muscle aldolase and erythrocyte membrane proteins.**
Chi-Kuang Huang and Frederic M. Richards

5522 **Isolation and *in vitro* translation of the messenger RNA coding for pancreatic amylase.**
Raymond J. MacDonald, Alan E. Przybyla, and William J. Rutter

5529 **α-Actinin and tropomyosin interactions with a hybrid complex of erythrocyte·actin and muscle·myosin.**
Saul Puszkin, Elena Puszkin, Jonathan Maimon, Charles Rouault, William Schook, Christine Ores, Shaul Kochwa, and Richard Rosenfield

5538 **Relationship of sialic acid to function and *in vitro* survival of human Factor VIII/von Willebrand factor protein.**
James M. Sodetz, Salvatore V. Pizzo, and Patrick A. McKee

5547 **Accessibility of proteins in rat liver-free and membrane-bound ribosomes to lactoperoxidase-catalyzed iodination.**
John A. Lewis and David D. Sabatini

5556 **Crystallographic data for chicken liver fructose bisphosphatase.**
Wayne F. Anderson and Brian W. Matthews

5558 **Purification of human erythropoietin.**
Takaji Miyake, Charles K.-H. Kung, and Eugene Goldwasser

5565 **Isolation of transverse tubules by fractionation of triad junctions of skeletal muscle.**
Yat H. Lau, Anthony H. Caswell, and Jean-Pierre Brunschwig

5575 **Isolation and characterization of multiple molecular forms of cytosolic NAD-linked glycerol-3-phosphate dehydrogenase from normal and neoplastic rabbit tissues.**
Marc J. Ostro and Thomas P. Fondy

5584 **Purification and some properties of *Escherichia coli* tRNA nucleotidyltransferase.**
Peter Schofield and Kenneth R. Williams

5589 **Kinetic mechanism of tRNA nucleotidyltransferase from *Escherichia coli*.**
Kenneth R. Williams and Peter Schofield

August 25, 1977

COMMUNICATIONS

5599 **Crystal properties of [des 16-20]semisynthetic sequence variants of ribonuclease S′.**
Irwin M. Chaiken, Hope C. Taylor, and Herman L. Ammon

5602 **Ca^{2+}-dependent protease in human platelets. Specific cleavage of platelet polypeptides in the presence of added Ca^{2+}.**
David R. Phillips and Milica Jakábová

5606 ***In vitro* synthesis of a DNA probe for antisense globin sequences.**
Stuart H. Orkin

5609 **Ca^{2+}-dependent regulation of cyclic AMP phosphodiesterase by parvalbumin.**
James D. Potter, John R. Dedman, and Anthony R. Means

5612 **A photochemical procedure for reduction of oxidation-reduction proteins employing deazariboflavin as catalyst.**
Vincent Massey and Peter Hemmerich

5615 **Synthesis of RNA from cellulose-bound complementary DNA.**
Cornelia R. Thrash and Robert T. Schimke

5619 **Concerning the catalytic hydrogenation of polyprenyl phosphate-mannose synthesized by the retina.**
Edward L. Kean

5622 **GDP-mannose-polyprenyl phosphate mannosyltransferases of the retina.**
Edward L. Kean

5630 **Active transport of sodium and potassium ions by the sodium and potassium ion-activated adenosine triphosphatase from renal medulla. Reconstitution of the purified enzyme into a well defined *in vitro* transport system.**
Stanley M. Goldin

5643 **Linear electric field effect and nuclear modulation studies of ferredoxins and high potential iron-sulfur proteins.**
Jack Peisach, Nanette R. Orme-Johnson, William B. Mims, and William H. Orme-Johnson

5651 **Purification of *S*-adenosylmethionine:ε-*N*-L-lysine methyltransferase. The first enzyme in carnitine biosynthesis.**
Peggy R. Borum and Harry P. Broquist

5656 **Cytochrome b_5 and cytochrome b_5 reductase-phospholipid vesicles. Intervesicle protein transfer and orientation factors in protein-protein interactions.**
Harry G. Enoch, Patrick J. Fleming, and Philipp Strittmatter

5661 **Regulation of citrate transport and pyruvate dehydrogenase in rat kidney cortex mitochondria by bicarbonate.**
Brian H. Robinson, Jos Oei, Surinder Cheema-Dhadli, and Mitchell L. Halperin

5666 **Studies on the specificity of phosphorylase kinase using peptide substrates.**
George W. Tessmer, James R. Skuster, Louisa B. Tabatabai, and Donald J. Graves

5672 **Incubations of testis *myo*-inositol-1-phosphate synthase with D-[5-^{18}O]glucose 6-phosphate and with $H_2{}^{18}O$ show no evidence of Schiff base formation.**
William R. Sherman, Abdul Rasheed, Linda A. Mauck, and Jacek Wiecko

5677 **Calcium-dependent adenylate cyclase from rat cerebral cortex. Reversible activation by sodium fluoride.**
Charles O. Brostrom, Margaret A. Brostrom, and Donald J. Wolff

5686 **Human thymidylate kinase. Purification, characterization, and kinetic behavior of the thymidylate kinase derived from chronic myelocytic leukemia.**
Lih-Syng Lee and Yung-chi Cheng

5692 **Androgen and initiation of protein synthesis in the prostate. Binding of Met-tRNA$_f^{Met}$ to cytosol initiation factor and ribosomal subunit particles.**
Tehming Liang, Evangelina Castañeda, and Shutsung Liao

5701 **Presence of a tightly bound NAD^+ in urocanase of *Pseudomonas putida*.**
Rita M. Egan and Allen T. Phillips

5708 **Evolution of duplicated lactate dehydrogenase isozymes in salmon. Abortive ternary complex formation and breakdown.**
George S. Bailey and Soo Thye Lim

5716 **Properties of a mitochondrial suppressor mutation restoring oxidative phosphorylation in a nuclear mutant of the yeast *Schizosaccharomyces pombe*.**
Françoise Labaille, Anne-Marie Colson, Léon Petit, and André Goffeau

5724 **Inhibition of *Azotobacter vinelandii* RNA polymerase by cibacron blue F3GA.**
S. Anand Kumar and Joseph S. Krakow

5729 **The role of 2,4,5-trihydroxyphenylalanine in melanin biosynthesis.**
Doyle G. Graham and Peter W. Jeffs

5735 ***Mycobacterium smegmatis* fatty acid synthetase. Long chain transacylase chain length specificity.**
David O. Peterson and Konrad Bloch

5740 ***Mycobacterium smegmatis* fatty acid synthetase. Polysaccharide stimulation of the rate-limiting step.**
Robert J. Banis, David O. Peterson, and Konrad Bloch

5745 ***Mycobacterium smegmatis* fatty acid synthetase. A mechanism based on steady state rates and product distributions.**
William I. Wood, David O. Peterson, and Konrad Bloch

5750 **Partial purification of 6-(D-*erythro*-1′,2′,3′-trihydroxypropyl)-7,8-dihydropterin triphosphate synthetase from chicken liver.**
Kazuo Fukushima, Walter E. Richter, Jr., and Tetsuo Shiota

5756 **Self-association of Apo-C-I from the human high density lipoprotein complex.**
James C. Osborne, Jr., Thomas J. Bronzert, and H. Bryan Brewer, Jr.

5761 **Relationship between the β-adrenergic receptor and adenylate cyclase. Studies of ligand binding and enzyme activity in purified membranes of S49 lymphoma cells.**
Elliott M. Ross, Michael E. Maguire, Thomas W. Sturgill, Rodney L. Biltonen, and Alfred G. Gilman

5776 **Hydrodynamic properties of the β-adrenergic receptor and adenylate cyclase from wild type and variant S49 lymphoma cells.**
Tatsuya Haga, Kazuko Haga, and Alfred G. Gilman

5783 **Quaternary conformational changes in human oxyhemoglobin studied by laser photolysis.**
Charles A. Sawicki and Quentin H. Gibson

5789 **The ovalbumin gene. Purification of the anticoding strand.**
Savio L. C. Woo, John J. Monahan, and Bert W. O'Malley

5798 **Purification and characterization of initiation factors IF-E4 and IF-E6 from rabbit reticulocytes.**
Rob Benne, Marianne Luedi, and John W. B. Hershey

5804 **Activation of hepatic guanylate cyclase by *N*-methyl-*N*′-nitro-*N*-nitrosoguanidine. Effects of thiols, *N*-ethylmaleimide, and divalent cations.**
Frederick R. DeRubertis and Patricia A. Craven

5815 **Biosynthesis of phytosphingosine by the rat.**
Michael W. Crossman and Carlos B. Hirschberg

5820 **Inducible membrane-bound L-lactate dehydrogenase from *Escherichia coli*. Purification and properties.**
Masamitsu Futai and Hiromichi Kimura

5828 **Insulin binding to the human lymphocyte receptor. Evaluation of the negative cooperativity model.**
Robert J. Pollet, Mary L. Standaert, and Barry A. Haase

5835 **Aspartate aminotransferase. Determination of the active site occupancy pattern indicates independent transamination of the two subunits.**
Hansjörg Schlegel, Peter E. Zaoralek, and Philipp Christen

5839 **Dual enzymatic routes to L-tyrosine and L-phenylalanine via pretyrosine in *Pseudomonas aeruginosa*.**
Nanu Patel, Duane L. Pierson, and Roy A. Jensen

5847 **Parathyroid hormone inhibitors. Design, synthesis, and biologic evaluation of hormone analogues.**
Michael Rosenblatt, Edward N. Callahan, Jane E. Mahaffey, Allan Pont, and John T. Potts, Jr.

5852 **Investigation of regulation of microsomal hydroxymethylglutaryl coenzyme A reductase and methyl sterol oxidase of cholesterol biosynthesis.**
Joseph T. Spence and James L. Gaylor

5859 **Selective *de novo* synthesis of tyrosine hydroxylase in organ cultures of rat superior cervical ganglia after *in vivo* administration of nerve growth factor.**
Paul C. MacDonnell, Nathaniel Tolson, and Gordon Guroff

5864 **Effects of altered thyroid function on galactosyl diacylglycerol metabolism in myelinating rat brain.**
Thomas J. Flynn, Diwakar S. Deshmukh, and Ronald A. Pieringer

5871 **Solubilization and resolution of thromboxane synthesizing system from microsomes of bovine blood platelets.**
Tanihiro Yoshimoto, Shozo Yamamoto, Minoru Okuma, and Osamu Hayaishi

5875 **Relationship between oxygen-induced proton efflux and membrane energization in cells of *Escherichia coli*.**
J. Michael Gould and William A. Cramer

5883 **Effect of Rauscher leukemia virus-specific proteins on reverse transcriptase. Binding between reverse transcriptase and p30.**
Alok Kumar Bandyopadhyay

5888 **Selective radioactive labeling of cell surface sialoglycoproteins by periodate-tritiated borohydride.**
Carl G. Gahmberg and Leif C. Andersson

5895 **Degradation of L-[^{3}H]fucose-labeled plasma membrane components from regenerating rat liver.**
Alphonse E. Sirica, Peter J. Goldblatt, and Jeffrey F. McKelvy

5900 **Solubilization and partial purification of heme oxygenase**

from rat liver.
Mahin D. Maines, Nader G. Ibrahim, and Attallah Kappas

5904 **Ribonuclease inhibitor from human placenta. Purification and properties.**
Peter Blackburn, Glynn Wilson, and Stanford Moore

5911 **Envelope composition and antibiotic hypersensitivity of *Escherichia coli* mutants defective in phosphatidylserine synthetase.**
Christian R. H. Raetz and John Foulds

5916 **Base-unpaired regions in supercoiled replicative form DNA of coliphage M13.**
Santanu Dasgupta, David P. Allison, Catherine E. Snyder, and Sankar Mitra

ADDITIONS AND CORRECTIONS

5924 **Participation of hemoglobins A and F in polymerization of sickle hemoglobin. Vol 252 (1977) 3414–3421.**
Mark A. Goldberg, Michael A. Husson, and H. Franklin Bunn

iii **Cumulative author index. Numbers 1 through 16.**

September 10, 1977

COMMUNICATIONS

5925 **Enzymic reactions of phosphate analogs.**
Joseph H. Gardner and Larry D. Byers

5928 **Regulation of *Escherichia coli* ornithine transcarbamylase by orotate.**
David M. Knight and Evan E. Jones

5931 **Trifluoroacetyl tripeptides as potent inhibitors of human leukocyte elastase.**
Patrick Lestienne, Jean-Luc Dimicoli, and Joseph Bieth

5934 **Purification of human fibroblast interferon by zinc chelate affinity chromatography.**
Victor G. Edy, Alfons Billiau, and Pierre De Somer

5936 **Mutants of *Bacillus megaterium* resistant to uncouplers of oxidative phosphorylation.**
Stuart J. Decker and Dennis R. Lang

5939 **Nomenclature of multiple forms of enzymes. Recommendations (1976).**
IUPAC-IUB Commission on Biochemical Nomenclature (CBN)

5942 **Evidence for distinct guanine nucleotide sites in the regulation of the glucagon receptor and of adenylate cyclase activity.**
Pramod M. Lad, Ann F. Welton, and Martin Rodbell

5947 **Solubilization and separation of the glucagon receptor and adenylate cyclase in guanine nucleotide-sensitive states.**
Ann F. Welton, Pramod M. Lad, Andrew C. Newby, Hirohei Yamamura, Simonetta Nicosia, and Martin Rodbell

5951 **Regulation by glucagon and divalent cations of inhibition of hepatic adenylate cyclase by adenosine.**
Constantine Londos and M. Sue Preston

5957 **Activation of the hepatic adenylate cyclase system by divalent cations. A Reassessment.**
Constantine Londos and M. Sue Preston

5962 **Chromatin subunits contain normal levels of major acetylated histone species.**
James R. Davie and E. Peter M. Candido

5967 **Structures of enzyme-bound metal·nucleotide complexes in the phosphoryl transfer reaction of muscle pyruvate kinase. ^{31}P NMR studies with magnesium and kinetic studies with chromium nucleotides.**
Raj K. Gupta and Albert S. Mildvan

5977 **Properties of soluble rat brain histone lysine methyltransferase.**
James C. Wallwork, Douglas P. Quick, and John A. Duerre

5981 ***In vitro* studies on the methylation of histones in rat brain nuclei.**
John A. Duerre, James C. Wallwork, Douglas P. Quick, and Kathleen M. Ford

5986 **Cleavage of tryptophanyl peptide bonds in cytochrome b_5 by cyanogen bromide.**
Juris Ozols and Craig Gerard

5990 **High affinity lipid binding sites on the peripheral membrane enzyme pyruvate oxidase. Specific ligand effects on detergent binding.**
Herbert L. Schrock and Robert B. Gennis

5996 **An anion binding study of vanadyl(IV) human serotransferrin. Evidence for direct linkage to the metal.**
Robert F. Campbell and N. Dennis Chasteen

6002 **Regulation of *de novo* purine synthesis in human lymphoblasts. Similar rates of *de novo* synthesis during growth by normal cells and mutants deficient in hypoxanthine-guanine phosphoribosyltransferase activity.**
Michael S. Hershfield and J. Edwin Seegmiller

6011 **Spectral perturbations of the histidine and tryptophan in cobra venom phospholipase A_2 upon metal ion and mixed micelle binding.**
Mary Fedarko Roberts, Raymond A. Deems, and Edward A. Dennis

6018 **Stimulation of adenosine 3′:5′-monophosphate formation by prostaglandins in human astrocytoma cells. Inhibition by nonsteroidal anti-inflammatory agents.**
Rainer Ortmann and John Phillip Perkins

6026 **Developmentally regulated lectin from embryonic chick pectoral muscle. Purification by affinity chromatography.**
Thomas P. Nowak, David Kobiler, Lawrence E. Roel, and Samuel H. Barondes

6031 **Inhibitory effects of agents altering the structure of DNA on the synthesis of pyrimidine deoxyribonucleotides in bacteriophage T4 DNA replication.**
James B. Flanegan, Che-Shen Chiu, and G. Robert Greenberg

6038 **Investigation of the relation of the pH-dependent dissociation of malate dehydrogenase to modification of the enzyme by *N*-ethylmaleimide.**
C. Thomas Hodges, John C. Wiggins, and John H. Harrison

6042 **Human kidney γ-glutamyl transpeptidase. Catalytic properties, subunit structure, and localization of the γ-glutamyl binding site on the light subunit.**
Suresh S. Tate and M. Elizabeth Ross

6046 **Steady state and equilibrium exchange kinetic studies of the sheep brain glutamine synthetase reaction.**
R. Donald Allison, John A. Todhunter, and Daniel L. Purich

6052 **Modulation of thyroid hormone nuclear receptor levels by 3,5,3′-triiodo-L-thyronine in GH_1 cells. Evidence for two functional components of nuclear-bound receptor and relationship to the induction of growth hormone synthesis.**
Herbert H. Samuels, Frederick Stanley, and Lawrence E. Shapiro

6061 **On the structure of the prosthetic group of citrate (*pro*-3*S*)-lyase.**
Manoranjan Singh, Jack B. Robinson, Jr., and Paul A. Srere

6069 **Conversion of oxy- into methemerythrin in the presence of anions.**
Zdravko Bradić, Ronald Conrad, and Ralph G. Wilkins

6076 **Affinity labeling of human serum prealbumin with *N*-bromoacetyl-L-thyroxine.**
Sheue-Yann Cheng, Meir Wilchek, Hans J. Cahnmann, and Jacob Robbins

6082 **Dephosphorylation of phosphoproteins by *Escherichia coli* alkaline phosphatase.**
Ronald L. Mellgren, Gayle Ruffin Slaughter, and James A. Thomas

6090 **Studies of transferrin with the use of Cu^{2+} as an electron paramagnetic resonance spectroscopic probe.**
Jay L. Zweier and Philip Aisen

6097 **Hageman factor substrates. Human plasma prekallikrein: mechanism of activation by Hageman factor and participation in Hageman factor-dependent fibrinolysis.**
Robert Mandle, Jr. and Allen P. Kaplan

6105 **Opposite effect of organic phosphates on hemoglobin oxidation by hydroxylamine under aerobic and anaerobic conditions.**
Akio Tomoda, Shigeru Matsukawa, Masazumi Takeshita, and Yoshimasa Yoneyama

6108 **Purification and characterization of pig kidney pyruvate kinase (type A).**
Lars Berglund, Olle Ljungström, and Lorentz Engström

6112 **Analysis of molecular aspects of Na^+ and Ca^{2+} uptakes by embryonic cardiac cells in culture.**
Michel Fosset, Jean De Barry, Marie-Cecile Lenoir, and Michel Lazdunski

6118 **Hydroperoxide-dependent hydroxylation involving "H_2O_2-reducible hemoprotein" in microsomes of pea seeds. A new type enzyme acting on hydroperoxide and a physiological role of seed lipoxygenase.**
Atami Ishimaru and Isao Yamazaki

6125 **Purified proton conductor in proton translocating adenosine triphosphatase of a thermophilic bacterium.**
Harumasa Okamoto, Nobuhito Sone, Hajime Hirata, Masasuke Yoshida, and Yasuo Kagawa

6132 **Ribonucleoside diphosphate reductase from *Escherichia coli*. An immunological assay and a novel purification from an overproducing strain lysogenic for phage λ*dnrd*.**
Staffan Eriksson, Britt-Marie Sjöberg, Solveig Hahne, and Olle Karlström

6139 **Sulfhydryl group modification of thymidylate synthetase and its effect on activity and ternary complex formation.**
Patricia C. Plese and R. Bruce Dunlap

6145 **Purification of 3-hydroxy-3-methylglutaryl coenzyme A reductase by affinity chromatography on blue dextran/Sepharose 4B. Comparison of enzyme purified from normal rats and from rats treated with cholestyramine.**
Mayasandra V. Srikantaiah, Calvin D. Tormanen, William L. Redd, Joel E. Hardgrave, and Terence J. Scallen

6151 **A novel chemical modification of Δ^5-3-ketosteroid isomerase occurring during its 3-oxo-4-estren-17β-yl acetate-dependent photoinactivation.**
John R. Ogez, William F. Tivol, and William F. Benisek

6156 **Manganese cytochrome *c*. Structure and properties.**
L. Charles Dickinson and James C. W. Chien

6163 **Contribution of subunit interactions to the stability of lactate dehydrogenase.**
William W.-C. Chan and Karen E. Shanks

6169 **Induction of different rat liver supernatant aldehyde dehydrogenases by phenobarbital and tetrachlorodibenzo-*p*-dioxin.**
Richard A. Deitrich, Pequita Bludeau, Thomas Stock, and Michael Roper

6177 **Cro regulatory protein specified by bacteriophage λ. Structure, DNA-binding, and repression of RNA synthesis.**
Yoshinori Takeda, Atis Folkmanis, and Harrison Echols

6184 **Early events in the plasmin digestion of fibrinogen and fibrin. Effects of plasmin on fibrin polymerization.**
Linus L. Shen, Richard P. McDonagh, Jan McDonagh, and Jan Hermans

6190 **Modification of the lipid composition of normal and Rous sarcoma virus-infected cells. Effects on transformation-associated membrane properties.**
Arthur H. Hale, Jeffrey E. Pessin, Frank Palmer, Michael J. Weber, and Michael Glaser

6201 **Purification of *HLA*-linked B lymphocyte alloantigens in immunologically active form by preparative sodium dodecyl sulfate-gel electrophoresis and studies on their subunit association.**
Timothy A. Springer, James F. Kaufman, Lyle A. Siddoway, Dean L. Mann, and Jack L. Strominger

6208 **A nicked form of kinetoplast DNA in *Leishmania tarentolae*.**
Paul T. Englund, Daniel C. DiMaio, and Sharon S. Price

6217 **Ethionine and the phosphorylation of ribosomal protein S6.**
Margaret A. Treloar, Murray E. Treloar, and Robert Kisilevsky

6222 **Dimethyl sulfoxide-induced self-assembly of tubulin lacking associated proteins.**
Richard H. Himes, Paul R. Burton, and John M. Gaito

6229 **Fat cell plasma membranes. I. Preparation, characterization, and chemical composition.**
Yumiko Kawai and Robert G. Spiro

6236 **Fat cell plasma membranes. II. Studies on the glycoprotein components.**
Yumiko Kawai and Robert G. Spiro

ADDITIONS AND CORRECTIONS

6245 **Purification and properties of the nuclease inhibitor of *Aspergillus oryzae* and kinetics of its interaction with crystalline nuclease O. Vol. 251 (1976) 2808–2813.**
Takeshi Uozumi, Katsuhiko Ishino, Teruhiko Beppu, and Kei Arima

6245 **^{31}P nuclear magnetic resonance of bound substrates of arginine kinase reaction. Chemical shifts in binary; ternary, quaternary, and transition state analog complexes. Vol. 252 (1977) 3344–3350.**
B. D. Nageswara Rao and Mildred Cohn

September 25, 1977

COMMUNICATIONS

6247 **Isolation and characterization of a novel trisialoganglioside, G_{T1a}, from human brain.**
Susumu Ando and Robert K. Yu

6251 ***Escherichia coli* protein X is the *RecA* gene product.**
John W. Little and Dennis G. Kleid

6253 **Circular dichroism studies of fd coat protein in membrane vesicles.**
Robert W. Williams and A. Keith Dunker

6256 **Calcium stimulation of plasminogen activator secretion/production by Swiss 3T3 cells.**
Iih-Nan Chou, Richard O. Roblin, and Paul H. Black

6260 **Isolation of a warfarin binding protein from liver endoplasmic reticulum of Sprague-Dawley and warfarin-resistant rats.**
Marylee T. Searcey, C. Bruce Graves, and Robert E. Olson

6268 **Cobalt-substituted horseradish peroxidase.**
Ming-Yu R. Wang, Paul F. Hollenberg, and Brian M. Hoffman

6276 **Isolation, crystallization, and primary amino acid sequence of human platelet factor 4.**
Mark Hermodson, Gottfried Schmer, and Kotoku Kurachi

6280 ***Micrococcus luteus* correndonucleases. I. Resolution and purification of two endonucleases specific for DNA containing pyrimidine dimers.**
Sheikh Riazuddin and Lawrence Grossman

6287 ***Micrococcus luteus* correndonucleases. II. Mechanism of action of two endonucleases specific for DNA containing pyrimidine dimers.**
Sheikh Riazuddin and Lawrence Grossman

6294 ***Micrococcus luteus* correndonucleases. III. Evidence for involvement in repair *in vivo* of two endonucleases specific for DNA containing pyrimidine dimers.**
Sheikh Riazuddin, Lawrence Grossman, and Inga Mahler

6299 **Identification of UDP-glucose as an intermediate in the biosynthesis of the membrane-derived oligosaccharides of *Escherichia coli*.**
Howard Schulman and Eugene P. Kennedy

6304 **Energy-dependent calcium uptake activity in cultured mouse fibroblast microsomes. Regulation of the uptake system by cell density.**
Leon Moore and Ira Pastan

6310 **Pseudouridine-deficient transfer RNAs from *Escherichia***

***coli* B and their use as substrates for pseudouridine synthetase.**
Linda K. Kwong, Virginia G. Moore, and Ivan I. Kaiser

6316 **Regulation of chondroitin sulfate synthesis. Effect of β-xylosides on synthesis of chondroitin sulfate proteoglycan, chondroitin sulfate chains, and core protein.**
Nancy B. Schwartz

6322 **Isolation and characterization of a protein from rat testis which inhibits cyclic AMP-dependent protein kinase and phosphodiesterase.**
Elmus G. Beale, John R. Dedman, and Anthony R. Means

6328 **Stereospecificity of microsomal and purified epoxide hydrase from rat liver. Hydration of arene oxides of polycyclic hydrocarbons.**
Dhiren R. Thakker, Haruhiko Yagi, Wayne Levin, Anthony Y. H. Lu, Allan H. Conney, and Donald M. Jerina

6335 **Comparative studies on cyclic AMP binding and protein kinase in cyclic AMP-responsive and -unresponsive Walker 256 mammary carcinomas.**
Yoon Sang Cho-Chung, Timothy Clair, Pon Nyong Yi, and Clifford Parkison

6342 **Cyclic AMP-binding proteins and protein kinase during regression of Walker 256 mammary carcinoma.**
Yoon Sang Cho-Chung, Timothy Clair, and Rochelle Porper

6349 **Loss of nuclear cyclic AMP binding in cyclic AMP-unresponsive Walker 256 mammary carcinoma.**
Yoon Sang Cho-Chung, Timothy Clair, and Pamela Huffman

6356 **Determination of the amino acid sequence of troponin C from rabbit skeletal muscle.**
John H. Collins, Marion L. Greaser, James D. Potter, and Marcus J. Horn

6363 **Properties of dihydroxyacetone phosphate acyltransferase in the Harderian gland.**
Charles O. Rock, Veronica Fitzgerald, and Fred Snyder

6367 **Purification of thioredoxin, thioredoxin reductase, and glutathione reductase by affinity chromatography.**
Vincent P. Pigiet and Robert R. Conley

6373 **Heterogeneity of cytochrome P-450s induced by polychlorinated biphenyls.**
Alvito P. Alvares and Attallah Kappas

6379 **Purification from hamster cells of the multifunctional protein that initiates *de novo* synthesis of pyrimidine nucleotides.**
Patrick F. Coleman, D. Parker Suttle, and George R. Stark

6386 **Precursor of egg white lysozyme. Amino acid sequence of an NH_2-terminal extension.**
Richard D. Palmiter, Jean Gagnon, Lowell H. Ericsson, and Kenneth A. Walsh

6394 **Activation by phosphate of yeast phosphofructokinase.**
Marcelino Bañuelos, Carlos Gancedo, and Juana M. Gancedo

6399 **Catabolite inactivation of the galactose uptake system in yeast.**
Heidrun Matern and Helmut Holzer

6403 **Role of anticodon bases in aminoacylation of *Escherichia coli* methionine transfer RNAs.**
Linda Stern and LaDonne H. Schulman

6409 **Purification and subunit structure of adenosine deaminase from human kidney.**
William P. Schrader and Andrew R. Stacy

6416 **Purification and mode of action of exoribonuclease from bovine brain.**
Arabinda Guha

6421 **Purification and properties of superoxide dismutase from a red alga, *Porphyridium cruentum*.**
Hara P. Misra and Irwin Fridovich

6424 **Metabolism of benzo(*a*)pyrene with isolated hepatocytes and the formation and degradation of DNA-binding derivatives.**
M. Danny Burke, Helena Vadi, Bengt Jernström, and Sten Orrenius

6432 **Human blood coagulation Factor XI. Purification, properties, and mechanism of activation by activated Factor XII.**
Bonno N. Bouma and John H. Griffin

6438 **A simple generalized equation for the analysis of multiple inhibitions of Michaelis-Menton kinetic systems.**
Ting-Chao Chou and Paul Talalay

6443 **Guanosine 3′:5′-monophosphate-dependent protein kinase from bovine lung. Subunit structure and characterization of the purified enzyme.**
Gordon N. Gill, Gordon M. Walton, and Pamela J. Sperry

6450 **Binding of ^{3}H-catecholamines to α-noradrenergic receptor sites in calf brain.**
David C. U'Prichard and Solomon H. Snyder

6464 **Human ornithine transcarbamylase. Purification and characterization of the enzyme from normal liver and the liver of a Reye's syndrome patient.**
Duane L. Pierson, Sherry L. Cox, and Brian E. Gilbert

6470 **The link protein in proteoglycan aggregates from the swarm rat chondrosarcoma.**
Theodore R. Oegema, Jr., Martin Brown, and Dominic Dziewiatkowski

6478 **DNA polymerase III holoenzyme of *Escherichia coli*. Purification and resolution into subunits.**
Charles McHenry and Arthur Kornberg

6485 **Further characterization of bacteriophage T3-induced ribonucleic acid polymerase. Studies on the size of *in vitro* transcripts and interaction of T3 RNA polymerase with T3 DNA.**
Prasanta R. Chakraborty, Rino A. Salvo, Hemanta K. Majumder, and Umadas Maitra

6494 **Identification, characterization, and quantitative measurement of cyclic AMP receptor proteins in cytosol of various tissues using a photoaffinity ligand.**
Ulrich Walter, Isao Uno, Alice Y.-C. Liu, and Paul Greengard

6501 ***Acanthamoeba* myosin II.**
Hiroshi Maruta and Edward D. Korn

6510 **Radioiodination of proteins in single polyacrylamide gel slices. Tryptic peptide analysis of all the major members of complex multicomponent systems using microgram quantities of total protein.**
John H. Elder, Richard A. Pickett, II, Jacqueline Hampton, and Richard A. Lerner

6516 **Localization of the sites along nucleosome DNA which interact with NH_2-terminal histone regions.**
James P. Whitlock, Jr. and Robert T. Simpson

6521 **A novel RNA affecting embryonic gene functions in early chick blastoderm.**
Amrut K. Deshpande, Sonia B. Kakowlew, Hans-Henning Arnold, Patricia A. Crawford, and M. A. Q. Siddiqui

6528 **DNA polymerase-α. Purification and structural characterization of the near homogeneous enzyme from human KB cells.**
Paul A. Fisher and David Korn

6536 **Isolation and characterization of an avian hepatic binding protein specific for *N*-acetylglucosamine-terminated glycoproteins.**
Toshisuke Kawasaki and Gilbert Ashwell

6544 **Nuclease B. A possible precursor of nuclease A, an extracellular nuclease of *Staphylococcus aureus*.**
Austine Davis, India B. Moore, Diana S. Parker, and Hiroshi Taniuchi

6554 **Partial purification of the D-glucose transport system in rat adipocyte plasma membranes.**
Michael F. Shanahan and Michael P. Czech

6562 **Organization of the yeast ribosomal RNA gene cluster via cloning and restriction analysis.**
Kamalendu Nath and Arthur P. Bollon

COMMUNICATIONS

6573 **Detection of a variant of Protein 3, the major transmembrane protein of the human erythrocyte.**
Thomas J. Mueller and Martin Morrison

6577 **Altered absorption spectra of iso-1-cytochromes c from mutants of yeast.**
M. Ernst Schweingruber, Fred Sherman, and John W. Stewart

6581 **Regulation of lipogenesis in isolated hepatocytes by triglyceride-rich lipoproteins.**
M. R. Lakshmanan, Richard A. Muesing, George A. Cook, and Richard L. Veech

6585 **Human lymphoblastoid interferon. Large scale production and partial purification.**
Pamela J. Bridgen, Christian B. Anfinsen, Lila Corley, Sikta Bose, Kathryn C. Zoon, Urs Th. Rüegg, and Charles E. Buckler

6588 **Study of autophosphorylation of isoenzymes of cyclic AMP-dependent protein kinases.**
Ulrich Walter, Isao Uno, Alice Y.-C. Liu, and Paul Greengard

6591 **Induction of fatty acid cyclooxygenase activity in canine kidney cells (MDCK) by benzo(*a*)pyrene.**
Aviv Hassid and Lawrence Levine

6594 **Tryptophan synthase of *Escherichia coli*. Removal of pyridoxal 5′-phosphate and separation of the α and β_2 subunits.**
Edith Wilson Miles and Mitsuaki Moriguchi

6600 **Chemical and physical changes in proteoglycans during development of chick limb bud chondrocytes grown *in vitro*.**
Silvana De Luca, Dick Heinegård, Vincent C. Hascall, James H. Kimura, and Arnold I. Caplan

6609 **Unusual distributions of amino acids in complementarity-determining (hypervariable) segments of heavy and light chains of immunoglobulins and their possible roles in specificity of antibody-combining sites.**
Elvin A. Kabat, Tai Te Wu, and Howard Bilofsky

6617 **Calcium-promoted changes of the human erythrocyte membrane. Involvement of spectrin, transglutaminase and a membrane-bound protease.**
Darrell R. Anderson, J. Lawrence Davis, and Kermit L. Carraway

6624 **Effect of fatty acid saturation on α-aminoisobutyric acid transport in Ehrlich ascites cells.**
Terry L. Kaduce, Atif B. Awad, Lydia J. Fontenelle, and Arthur A. Spector

6631 **Covalent immobilization of soluble and enzymically active adenine nucleotide coenzymes by a single step procedure.**
Carl W. Fuller and Harold J. Bright

6640 **Purification and properties of a T4 bacteriophage factor that modifies valyl-tRNA synthetase of *Escherichia coli*.**
Uwe R. Müller and George L. Marchin

6646 **Analysis of the structure of T4 bacteriophage-modified valyl-tRNA synthetase by limited proteolysis and isoelectric focusing.**
Uwe R. Müller and George L. Marchin

6651 **Antigenic properties of apoproteins A-I and A-II in intact high density lipoprotein.**
Gustav Schonfeld, Jung-shou Chen, and Robert G. Roy

6655 **Use of antibody specificity to study the surface disposition of apoprotein A-I on human high density lipoproteins.**
Gustav Schonfeld, Jung-shou Chen, and Robert G. Roy

6660 **Purification of rat liver nuclear protein kinase NII.**
William Thornburg and Thomas J. Lindell

6666 **Immunoadsorption of specific chicken oviduct polysomes. Isolation of ovalbumin, ovomucoid, and lysozyme messenger RNA.**
Bernd Groner, Nancy E. Hynes, Albrecht E. Sippel, Sigrid Jeep, M. Chi Nguyen Huu, and Günther Schütz

6675 **Transport and metabolism of adenosine 3′:5′-monophosphate and N^6,$O^{2'}$-dibutyryl adenosine 3′:5′-monophosphate by isolated renal tubules.**
Evelyne F. Boumendil-Podevin and René A. Podevin

6682 **Mechanism of diacylglycerophosphate synthesis in *Mycobacteria*.**
Harumi Okuyama, Yasunaga Kameyama, Michiyo Fujikawa, Kazuyo Yamada, and Hiroh Ikezawa

6687 **Structures of the carbohydrate moiety of ovalbumin glycopeptide III and the difference in specificity of endo-β-*N*-acetylglucosaminidases C_{II} and H.**
Tadashi Tai, Katsuko Yamashita, Setsuko Ito, and Akira Kobata

6695 **Genetic differences in the rate of histidase synthesis in inbred mice.**
William C. Hanford and Stuart M. Arfin

6700 **Solubilization, purification, and characterization of a nucleoside triphosphatase from avian myeloblastosis virus.**
Ranajit K. Banerjee and Efraim Racker

6707 **UDP-glucuronate carboxy-lyase in cultured chondrocytes.**
K. Varughese John, Nancy B. Schwartz, and Helmut Ankel

6711 **Reversible inhibition of adenine nucleotide translocation by long chain acyl-CoA esters in bovine heart mitochondria and inverted submitochondrial particles. Comparison with atractylate and bongkrekic acid.**
Balvin H. Chua and Earl Shrago

6715 **Interaction of phosphoglycerate kinase with human erythrocyte membranes.**
Barun K. De and Mary E. Kirtley

6721 **Liposome oxidation and erythrocyte lysis by enzymically generated superoxide and hydrogen peroxide.**
Edwin Welles Kellogg, III and Irwin Fridovich

6729 **Studies on the mechanism of action of the flavoenzyme lactate oxidase. Proton uptake and release during the binding of transition state analogs.**
Sandro Ghisla and Vincent Massey

6736 **An analysis of partial reactions in the overall chain elongation of saturated and unsaturated fatty acids by rat liver microsomes.**
John T. Bernert, Jr. and Howard Sprecher

6745 **The self-association of apolipoprotein A-II from plasma high density lipoproteins of rhesus monkey (*Macaca mulatta*).**
Donald L. Barbeau, Ta-lee Teng, and Angelo M. Scanu

6750 **Phosphorylative and functional modifications of nucleoplasmic RNA polymerase II by homologous adenosine 3′:5′-monophosphate-dependent protein kinase from calf thymus and by heterologous phosphatase.**
Evangelia G. Kranias, John S. Schweppe, and Richard A. Jungmann

6759 **Selective extraction of membrane-bound proteins by phospholipid vesicles.**
Stanley R. Bouma, Francis W. Drislane, and Wray H. Huestis

6764 **A sodium-specific membrane permeability defect induced by phospholipid vesicle treatment of erythrocytes.**
Wray H. Huestis

6769 **Mechanism for oxygen exchange in the chloroplast photophosphorylation system.**
Mary J. Wimmer and Irwin A. Rose

6776 **Interaction of papain with derivatives of phenylalanylglycinal.**
Jeffrey A. Mattis, Jill B. Henes, and Joseph S. Fruton

6783 **Induction of tyrosine aminotransferase synthesis in isolated liver cell suspensions. Absolute dependence of induction on glucocorticoids and glucagon or cyclic AMP.**
Michael J. Ernest, Ching-Ling Chen, and Philip Feigelson

6792 **Interrelationships between the binding sites for amino acids, dipeptides, and γ-glutamyl donors in γ-glutamyl transpeptidase.**
Gregory A. Thompson and Alton Meister

6799 **Partial purification of the triiodothyronine receptor from**

rat liver nuclei. Differences in the chromatographic mobility of occupied and unoccupied sites.
Enrique S. Silva, Helene Astier, Usha Thakare, Harold L. Schwartz and Jack H. Oppenheimer

6806 **Interrelationship of carbohydrate metabolism and alkaline phosphatase synthesis in *Bacillus licheniformis* 749/c.**
Cassandra Hydrean, Arati Ghosh, Mary Nallin, and Bijan K. Ghosh

6813 **Properties of the membrane-bound alkaline phosphatase from glucose- and lactate-grown cells of *Bacillus subtilis* SB 15.**
Ranajit Ghosh, Arati Ghosh, and Bijan K. Ghosh

6823 **Binding of estrogen receptor to uterine nuclei. Salt-extractable *versus* salt-resistant receptor·estrogen complexes.**
Abdulmaged M. Traish, R. Enzio Müller, and Herbert H. Wotiz

6831 **Comparative kinetic stabilities of staphylococcal enterotoxin types A, B, and C_1.**
John R. Warren

6835 **Adhesion among neural cells of the chick embryo. I. An immunological assay for molecules involved in cell-cell binding.**
Robert Brackenbury, Jean-Paul Thiery, Urs Rutishauser, and Gerald M. Edelman

6841 **Adhesion among neural cells of the chick embryo. II. Purification and characterization of a cell adhesion molecule from neural retina.**
Jean-Paul Thiery, Robert Brackenbury, Urs Rutishauser, and Gerald M. Edelman

6846 **Rat liver pre-proalbumin: complete amino acid sequence of the pre-piece. Analysis of the direct translation product of albumin messenger RNA.**
Arnold W. Strauss, Carl D. Bennett, Ann Marie Donohue, John A. Rodkey, and Alfred W. Alberts

6856 **Alterations of rat hepatic cholesterogenesis by heterologous lipoproteins.**
Laszlo Jakoi and Steven H. Quarfordt

6861 **Differences in glycosamino glycans synthesized by fibroblast-like cells from chick cornea, heart, and skin.**
Gary W. Conrad, Connie Hamilton, and Elaine Haynes

6871 **Effect of cysteine modification on dihydrofolate reductase from a methotrexate-resistant strain of *Escherichia coli* B. Identification of modified residues.**
Myra N. Williams and Carl D. Bennett

6878 **The RNA-dependent DNA polymerase of avian sarcoma virus B77. Binding of viral and nonviral ribonucleic acids to the α, β_2, and $\alpha\beta$ forms of the enzyme.**
Amnon Hizi, Jonathan P. Leis, and Wolfgang K. Joklik

6885 **Purification and characterization of polynucleotide phosphorylase from *Escherichia coli*. Probe for the analysis of 3′ sequences of RNA.**
Hermona Soreq and Uriel Z. Littauer

6889 **DNA-directed *in vitro* synthesis of β-galactosidase. Studies with purified factors.**
Hsiang-fu Kung, Betty Redfield, Benjamin V. Treadwell, Barnet Eskin, Carlos Spears, and Herbert Weissbach

6895 **Sequences and properties of two ribosome binding sites from the small size class of reovirus messenger RNA.**
Marilyn Kozak and Aaron J. Shatkin

6909 **Fragmentation of the Band 3 polypeptide from human erythrocyte membranes. Identification of regions likely to interact with the lipid bilayer.**
L. Kurt Drickamer

6918 **Zinc ion-induced assembly of tubulin.**
Felicia Gaskin and Yvonne Kress

6925 **Enzymatic properties of the heavy meromyosin subfragment of cardiac myosin from normal and thyrotoxic rabbits.**
Surath K. Banerjee, Edward G. Kabbas, and Eugene Morkin

6930 **Isolation and properties of the vaccinia virus DNA-dependent RNA polymerase.**
Joseph R. Nevins and Wolfgang K. Joklik

6939 **Isolation and partial characterization of the poly(A) polymerases from HeLa cells infected with vaccinia virus.**
Joseph R. Nevins and Wolfgang K. Joklik

6948 **Alterations of lysosomal size and density during rat liver perfusion. Suppression by insulin and amino acids.**
Alice N. Neely, Joanne R. Cox, James A. Fortney, Charles M. Schworer, and Glenn E. Mortimore

6955 **Lysosomal sequestration of intracellular protein as a regulatory step in hepatic proteolysis.**
Walter F. Ward, Joanne R. Cox, and Glenn E. Mortimore

ADDITIONS AND CORRECTIONS

6962 **Activation of methionine for transmethylation. Purification of the *S*-adenosylmethionine synthetase of bakers' yeast and its separation into two forms. Vol. 252 (1977) 4506–4513.**
Peter K. Chiang and Giulio L. Cantoni

October 25, 1977

COMMUNICATIONS

6963 **Isolation of reconstitutively active succinate dehydrogenase in highly purified state.**
Brian A. C. Ackrell, Edna B. Kearney, and Christopher J. Coles

6966 **Resolution of some components of adenylate cyclase necessary for catalytic activity.**
Elliott M. Ross and Alfred G. Gilman

6970 **Mechanism of action of indolyl-3-alkane α-hydroxylase.**
Henry J. Rosenfeld, Kyoichi A. Watanabe, and Joseph Roberts

6974 **Control of arginine metabolism in *Neurospora*. Induction of ornithine aminotransferase.**
Richard L. Weiss and George P. Anterasian

6981 **Preparation and characterization of cytochrome *c* oxidase vesicles with high respiratory control.**
Roger C. Carroll and Efraim Racker

6991 **Active site ligand binding by an inactive ribonuclease S analogue. A quantitative affinity chromatographic study.**
Hope C. Taylor and Irwin M. Chaiken

6995 **Glycosyl moiety of the lima bean lectin.**
Akira Misaki and Irwin J. Goldstein

7000 **Purification and properties of poly(adenosine diphosphate ribose) synthetase. Role of histone in poly(ADP-ribose) synthesis.**
Hiroto Okayama, Clark M. Edson, Masanori Fukushima, Kunihiro Ueda, and Osamu Hayaishi

7006 **Structure of the tubulin dimer.**
Richard F. Ludueña, Eric M. Shooter, and Leslie Wilson

7015 **Regulation of fatty acid synthetase in perinatal chicks. Identification of polysomes synthesizing fatty acid synthetase.**
Zendra E. Zehner, V. C. Joshi, and Salih J. Wakil

7023 **Role of ATP in removal of psoralen cross-links from DNA of *Escherichia coli* permeabilized by treatment with toluene.**
George H. Yoakum and Ronald S. Cole

7031 **Crystalline alkaline form fructose-1,6-diphosphatase. A simple purification procedure and preliminary x-ray diffraction analysis.**
Alexander McPherson, David Burkey, and Paul Stankiewicz

7035 **Cerebral glucose-6-phosphatase and the movement of 2-deoxy-D-glucose across cell membranes.**
J. Michael Anchors, Donald F. Haggerty, and Manfred L. Karnovsky

7042 **Differential scanning calorimetry of apo-, apophosphoryl-, and metalloalkaline phosphatases.**
Jan F. Chlebowski and Susan Mabrey

7053 **Allosteric interactions between metal ion and phosphate at the active sites of alkaline phosphatase as determined by ^{31}P NMR and ^{113}Cd NMR.**
Jan F. Chlebowski, Ian M. Armitage, and Joseph E. Coleman

7062 **Lectins as probes of chromatin structure. Binding of concanavalin A to purified rat liver chromatin.**
William B. Rizzo and Michael Bustin

7068 ***In vivo* metabolism of ceramides in rat brain. Fatty acid replacement and esterification of ceramide.**
Hikaru Okabe and Yasuo Kishimoto

7074 **Identification and characterization of arylsulfatase A and B of the rat basophil leukemia tumor.**
Stephen I. Wasserman and K. Frank Austen

7081 **The amino acid sequence of *Clostridium pasteurianum* iron protein, a component of nitrogenase. I. Tryptic peptides.**
Masaru Tanaka, Mitsuru Haniu, Kerry T. Yasunobu, and Leonard E. Mortenson

7089 **The amino acid sequence of *Clostridium pasteurianum* iron protein, a component of nitrogenase. II. Cyanogen bromide peptides.**
Masaru Tanaka, Mitsuru Haniu, Kerry T. Yasunobu, and Leonard E. Mortenson

7093 **The amino acid sequence of *Clostridium pasteurianum* iron protein, a component of nitrogenase. III. The NH_2-terminal and COOH-terminal sequences, tryptic peptides of large cyanogen bromide peptides, and the complete sequences.**
Masaru Tanaka, Mitsuru Haniu, Kerry T. Yasunobu, and Leonard E. Mortenson

7101 **Neutral amino acid transport in an established mouse lymphocytic cell line.**
Morris C. Finkelstein and Edward A. Adelberg

7109 **Histone 4 phosphotransferase activities in proliferating lymphocytes. Partial purification and characterization of an enzyme specific for Ser-47.**
Ruthann A. Masaracchia, Bruce E. Kemp, and Donal A. Walsh

7118 **Structure-function relationships in the interaction of α-thrombin with blood platelets.**
Erwin F. Workman, Jr., Gilbert C. White, II, and Roger L. Lundblad

7124 **Reconstitution of the microsomal ethanol-oxidizing system. Qualitative and quantitative changes of cytochrome P-450 after chronic ethanol consumption.**
Kunihiko Ohnishi and Charles S. Lieber

7132 **Effects of cholera enterotoxin on catecholamine-stimulated changes in cation fluxes, cell volume, and cyclic AMP levels in the turkey erythrocyte.**
Stephen A. Rudolph, David E. Schafer, and Paul Greengard

7140 **Effect of cAMP and ATP on the reassociation of phosphorylated and nonphosphorylated subunits of the cAMP-dependent protein kinase from bovine cardiac muscle.**
Rafael Rangel-Aldao and Ora Mendelsohn Rosen

7146 **Cyclic AMP and the plasma membrane potential in *Neurospora crassa*.**
Martin L. Pall

7151 **Effect of glucagon on pinocytosis by the yolk sac of the rat.**
John A. Brown and Harold L. Segal

7156 **Isolation and biochemical characterization of α-2-opsonic glycoprotein from rat serum.**
Frank Blumenstock, Peter Weber, and Thomas M. Saba

7163 **Purification and characterization of a thiol:protein disulfide oxidoreductase from bovine liver.**
David F. Carmichael, John E. Morin, and Jack E. Dixon

7168 **Decarboxylation-dependent transamination catalyzed by mammalian 3,4-dihydroxyphenylalanine decarboxylase.**
Marion H. O'Leary and Richard L. Baughn

7174 **Mast cell binding of neurotensin. I. Iodination of neurotensin and characterization of the interaction of neurotensin with mast cell receptor sites.**
Lawrence H. Lazarus, Marilyn H. Perrin, and Marvin R. Brown

7180 **Mast cell binding of neurotensin. II. Molecular conformation of neurotensin involved in the stereospecific binding to mast cell receptor sites.**
Lawrence H. Lazarus, Marilyn H. Perrin, Marvin R. Brown, and Jean E. Rivier

7184 **Cystine requirement of continuous human lymphoid cell lines of normal and leukemic origin.**
J. Dirk Iglehart, R. Martin York, Andrew P. Modest, Herbert Lazarus, and David M. Livingston

7192 **Immunoglobulin structure and genetics. Identity between variable regions of a μ and γ2 chain**
An-Chuan Wang, Irene Y. Wang, and H. Hugh Fudenberg

7200 **Catalysis by acetylcholinesterase. Acceleration of the hydrolysis of neutral acetic acid esters by certain aromatic cations.**
Philip Barnett and Terrone L. Rosenberry

7207 **Slowly reversible binding of catecholamine to a nucleotide-sensitive state of the β-adrenergic receptor.**
Lewis T. Williams and Robert J. Lefkowitz

7214 **Studies on bovine adrenal estrogen sulfotransferase. Inhibition and possible involvement of adenine-estrogen stacking.**
Jurij Rozhin, Anne Huo, Jiři Zemlička, and Samuel C. Brooks

7221 **Hydrogen isotope effects in the cyclization of D-glucose 6-phosphate by *myo*-inositol-1-phosphate synthase.**
Mary W. Loewus

7224 **GTP-binding proteins in membranes and the control of adenylate cyclase activity.**
Thomas Pfeuffer

7235 **Formation of α-1,2-mannosyl-mannose by an enzyme preparation from rabbit liver.**
Anil K. Verma, Mohan K. Raizada, and John S. Schutzbach

7243 **Lipolysis and adenosine 3′:5′-monophosphate metabolism in isolated white fat cells from genetically obese-hyperglycemic Mice (ob/ob).**
Raymond E. Shepherd, Craig C. Malbon, Charles J. Smith, and John N. Fain

7249 **Determination of the primary structure of cholera toxin B subunit.**
C.-Y. Lai

7257 **Covalent structure of the β chain of cholera enterotoxin.**
Alexander Kurosky, Daiel E. Markel, and Johnny W. Peterson

7265 ***Eco*RI methylase. Physical and catalytic properties of the homogeneous enzyme.**
Robert A. Rubin and Paul Modrich

7273 **Role of the 2-amino group of deoxyguanosine in sequence recognition by *Eco*RI restriction and modification enzymes.**
Paul Modrich and Robert A. Rubin

7279 **Inhibition of lipoprotein binding to cell surface receptors of fibroblasts following selective modification of arginyl residues in arginine-rich and B apoproteins.**
Robert W. Mahley, Thomas L. Innerarity, Robert E. Pitas, Karl H. Weisgraber, Judith H. Brown, and Erhard Gross

7288 **Characterization of the lipoproteins of atherosclerotic swine.**
Alan R. Tall, David Atkinson, Donald M. Small, and Robert W. Mahley

7294 **Isolation and characteristics of galactosyltransferase from Golgi membranes of lactating sheep mammary glands.**
Christopher A. Smith and Keith Brew

7300 **Duplex regions in "single-stranded" φX174 DNA are cleaved by a restriction endonuclease from *Haemophilus aegyptius*.**
Robert W. Blakesley, Jerry B. Dodgson, Ingolf F. Nes, and Robert D. Wells

7307 **Characterization of the non-histone nuclear proteins associated with rapidly labeled heterogeneous nuclear RNA.**
Jonathan Karn, Giorgio Vidali, Lidia C. Boffa, and Vincent G. Allfrey

7323 **Identification and organization of ribosomal protein genes of *Escherichia coli* carried by λ*fus*2 transducing phage.**
S. Richard Jaskunas, Ann Marie Fallon, and Masayasu Nomura

7337 **Organization of ribosomal protein genes of *Escherichia coli* as analyzed by polar insertion mutations.**
S. Richard Jaskunas and Masayasu Nomura

7344 **Insertion of DNA carrying ribosomal protein genes of *Escherichia coli* into charon vector phages.**
Bill G. Williams, Frederick R. Blattner, S. Richard Jaskunas, and Masayasu Nomura

7355 **Expression of ribosomal protein genes cloned in charon vector phages and identification of their promoters.**
S. Richard Jaskunas, Ann Marie Fallon, Masayasu Nomura, Bill G. Williams, and Frederick R. Blattner

7365 **Mapping of ribosomal protein genes by *in vitro* protein synthesis using DNA fragments of λ*fus*3 transducing phage DNA as templates.**
Lasse Lindahl, Leonard Post, Janice Zengel, Scott F. Gilbert, William A. Strycharz, and Masayasu Nomura

7384 **Reconstitution and purification of the D-glucose transporter from human erythrocytes.**
Michihiro Kasahara and Peter C. Hinkle

7391 **Changes in the frequency of specific transcripts during development of the pancreas.**
John D. Harding, Raymond J. MacDonald, Alan E. Przybyla, John M. Chirgwin, Raymond L. Pictet, and William J. Rutter

7398 **Interaction of *Salmonella typhimurium* with phospholipid vesicles. Incorporation of exogenous lipids into intact cells.**
Nicholas C. Jones and M. J. Osborn

7405 **Translocation of phospholipid between the outer and inner membranes of *Salmonella typhimurium*.**
Nicholas C. Jones and M. J. Osborn

ADDITIONS AND CORRECTIONS

7413 **Reversibility of phosphorylase kinase reaction. Vol. 252 (1977) 3408–3413.**
Yutaka Shizuta, Ramji L. Khandelwal, James L. Maller, Jackie R. Vanderheede, and Edwin G. Krebs

iii **Cumulative author index. Numbers 1 through 20.**

November 10, 1977

COMMUNICATIONS

7415 **Metabolism of thromboxane B_2 in man. Identification of the major urinary metabolite.**
L. Jackson Roberts, II, Brian J. Sweetman, N. Ann Payne, and John A. Oates

7418 **Changes in allosteric properties of phosphofructokinase bound to erythrocyte membranes.**
Naif S. Karadsheh and Kosaku Uyeda

7421 **Vanadate is a potent (Na,K)-ATPase inhibitor found in ATP derived from muscle.**
Lewis C. Cantley, Jr., Lee Josephson, Ronald Warner, Masaaki Yanagisawa, Claude Lechene, and Guido Guidotti

7424 **Glutamine phosphoribosylpyrophosphate amidotransferase from *Bacillus subtilis*. A novel iron-sulfur protein.**
Joseph Y. Wong, Eckart Meyer, and Robert L. Switzer

7427 **A role for aminoacyl-tRNA synthetases in the regulation of amino acid transport in mammalian cell lines.**
Pamela A. Moore, David W. Jayme, and Dale L. Oxender

7431 **Tunicamycin inhibits GlcNAc-lipid formation in plants.**
Mary C. Ericson, John T. Gafford, and Alan D. Elbein

7434 **Binding and biologic activity of glucagon in liver cell membranes of chronically hyperglucagonemic rats.**
Coimbatore B. Srikant, Dale Freeman, Kay McCorkle, and Roger H. Unger

7437 **Biosynthesis of carnitine in *Neurospora crassa*.**
Richard A. Kaufman and Harry P. Broquist

7440 **Characterization of tryptic fragments obtained from bovine brain protein modulator of cyclic nucleotide phosphodiesterase.**
Michael Walsh, Frits C. Stevens, Jacek Kuźnicki, and Witold Drabikowski

7444 **Muscarinic cholinergic receptors in rat heart. Effects of thyroidectomy.**
Virendra K. Sharma and Shailesh P. Banerjee

7447 **Reactivity of ferrous myoblobin at low pH.**
Giorgio M. Giacometti, T. G. Traylor, Paolo Ascenzi, Maurizio Brunori, and Eraldo Antonini

7449 **Activation of glycogen phosphorylase kinase by a calcium-activated, cyclic nucleotide-independent protein kinase system.**
Akira Kishimoto, Yoshimi Takai, and Yasutomi Nishizuka

7453 **Isolation and characterization of bound iron-sulfur proteins from bacterial photosynthetic membranes. I. Ferredoxins III and IV from *Rhodospirillum rubrum* chromatophores.**
Duane C. Yoch, Robert P. Carithers, and Daniel I. Arnon

7461 **Isolation and characterization of bound iron-sulfur proteins from bacterial photosynthetic membranes. II. Succinate dehydrogenase from *Rhodospirillum rubrum* chromatophores.**
Robert P. Carithers, Duane C. Yoch, and Daniel I. Arnon

7468 **Alteration of the rate of deoxyhemoglobin S polymerization. Effect of pH and percentage of oxygenation.**
Katsunori Shibata, Michael R. Waterman, and G. Larry Cottam

7475 **Effects of chemical modifications of heme on kinetics of carbon monoxide binding to free heme.**
Masanori Sono, James A. McCray, and Toshio Asakura

7483 **Kinetics of bilirubin binding to bovine serum albumin and the effects of palmitate.**
Roberta G. Reed

7488 **Studies on the role of adenosine 3′:5′-monophosphate in the activation of liver phosphorylase.**
Jackie R. Vandenheede, Ramji L. Khandelwal, and Edwin G. Krebs

7495 **Purification and properties of a NAD(P)H:flavin oxidoreductase from the luminous bacterium, *Beneckea harveyi*.**
George A. Michaliszyn, Simon S. Wing, and Edward A. Meighen

7500 **Rotational relaxation of the "microviscosity" probe diphenylhexatriene in paraffin oil and egg lecithin vesicles.**
Robert E. Dale, Lydia A. Chen, and Ludwig Brand

7511 **Pepstatin-insensitive proteolytic activity of rat liver lysosomes. Isolation and purification of a new pepstatin-insensitive proteolytic enzyme from rat lysosomes.**
George N. DeMartino, Thomas W. Doebber, and Leon L. Miller

7517 **Regulation of glycogen synthase. Phosphorylation specificities of cAMP-dependent and cAMP-independent kinases for skeletal muscle synthase.**
Thomas R. Soderling, Mary F. Jett, Nancy J. Hutson, and Balwant S. Khatra

7525 **Hydroxylaminolysis of penicillin binding components is enzymatically catalyzed.**
John W. Kozarich, Tokuzo Nishino, Eileen Willoughby, and Jack L. Strominger

7530 **Synthesis and release of low density lipoproteins by the isolated perfused pig liver.**
Noriaki Nakaya, Byung Hong Chung, Josef R. Patsch, and O. David Taunton

7534 **Membrane-bound estrone as substrate for microsomal UDP-glucuronyltransferase.**
David Zakim and Donald A. Vessey

7538 **Properties of the T state of human oxyhemoglobin studied by laser photolysis.**
Charles A. Sawicki and Quentin H. Gibson

7548 **Purification and properties of a cytosol Ca^{2+}-activated ATPase from *Tetrahymena pyriformis*.**
Balvin Chua, Charles Elson, and Earl Shrago

7555 **Carbohydrate moiety of HLA antigens. Antigenic properties and amino acid sequences around the site of glycosylation.**
Peter Parham, Barbara N. Alpert, Harry T. Orr, and Jack L. Strominger

7568 **Glucocorticoid receptor inactivation under cell-free conditions.**
Carl J. Nielsen, Julianne J. Sando, W. Mark Vogel, and William B. Pratt

7579 **Reactivation of thymocyte glucocorticoid receptors in a cell-free system.**
Julianne J. Sando, Carl J. Nielsen, and William B. Pratt

7583 **Reactivity and inhibitor potential of hydroxycitrate isomers with citrate synthase, citrate lyase, and ATP citrate lyase.**
Ann C. Sullivan, Manoranjan Singh, Paul A. Srere, and Jenny P. Glusker

7591 **Prolyl hydroxylase of earthworms. Substrate specificity of an enzyme from the subcuticular epithelium.**
Elijah Adams and Marlene Lamon

7598 **Essential arginine residues in tryptophanase from *Escherichia coli*.**
Michael N. Kazarinoff and Esmond E. Snell

7603 **Studies on a cyclic nucleotide-independent protein kinase and its proenzyme in mammalian tissues. I. Purification and characterization of an active enzyme from bovine cerebellum.**
Yoshimi Takai, Akira Kishimoto, Masanori Inoue, and Yasutomi Nishizuka

7610 **Studies on a cyclic nucleotide-independent protein kinase and its proenzyme in mammalian tissues. II. Proenzyme and its activation by calcium-dependent protease from rat brain.**
Masanori Inoue, Akira Kishimoto, Yoshimi Takai, and Yasutomi Nishizuka

7617 **Endogenous activating factor for guanylate cyclase in synaptosomal-soluble fraction of rat brain.**
Takeo Deguchi

7620 **Biochemical mechanism of uracil uptake regulation in *Escherichia coli B*. Allosteric effects on uracil phosphoribosyltransferase under stringent conditions.**
Robert Fast and Ola Sköld

7625 **Selective cell adhesion of neuronal cell lines.**
Roger Santala, David I. Gottlieb, and Daniel Littman, and Luis Glaser

7635 **Staphylococcal nuclease and pancreatic DNase cleave the DNA within the chromatin core particle at different sites.**
James P. Whitlock, Jr.

7640 **Protein synthesis in 3T3 and SV40-transformed 3T3 cells. Activity of ribosomes and cytosol proteins in cell-free protein synthesis.**
Barbara S. Conta and A. I. Meisler

7648 **Kinetics of agonist-mediated transitions in state of the cholinergic receptor.**
Gregory Weiland, Brian Georgia, Shelley Lappi, Colin F. Chignell, and Palmer Taylor

7657 **Studies of the β-galactoside transporter in inverted membrane vesicles of *Escherichia coli*. I. Symmetrical facilitated diffusion and proton gradient-coupled transport.**
Jack R. Lancaster, Jr. and Peter C. Hinkle

7662 **Studies of the β-galactoside transporter in inverted membrane vesicles of *Escherichia coli*. II. Symmetrical binding of a dansylgalactoside induced by an electrochemical proton gradient and by lactose efflux.**
Jack R. Lancaster, Jr. and Peter C. Hinkle

7667 **Regulation of the synthesis of superoxide dismutase in *Escherichia coli*. Induction by methyl viologen.**
H. Moustafa Hassan and Irwin Fridovich

7673 **Purification and characterization of CTP: cholinephosphate cytidylyltransferase from rat liver cytosol.**
Patrick C. Choy, Princeton H. Lim, and Dennis E. Vance

7678 **Glycosylation of *Escherichia coli* L-asparaginase.**
Jon W. Marsh, Jean Denis, and John C. Wriston, Jr.

7685 **Proteolysis of the bifunctional methionine-repressible aspartokinase II-homoserine dehydrogenase II of *Escherichia coli* K12. Production of an active homoserine dehydrogenase fragment.**
Alice Dautry-Varsat and Georges N. Cohen

7690 **Properties of regulatory subunit of cyclic AMP-dependent protein kinase (Peak I) from rabbit skeletal muscle prepared by urea treatment of the holoenzyme.**
K. Schwechheimer and F. Hofmann

7697 **Human thymidylate synthetase derived from blast cells of patients with acute myelocytic leukemia. Purification and characterization.**
Bruce J. Dolnick and Yung-chi Cheng

7704 **Comparison of the structures of carboxypeptidase A and thermolysin.**
William R. Kester and Brian W. Matthews

7711 **Partial purification and characterization of rat liver phenylalanine hydroxylase phosphatase.**
E. Jedlicki, S. Kaufman, and S. Milstien

7715 **Zinc, an essential component of the baseplates of T-even bacteriophages.**
Lloyd M. Kozloff and Murl Lute

7725 **Isolation and characterization of native and lower molecular weight forms of sheep plasminogen**
Nicholas F. Paoni, Bernard N. Violand, and Francis J. Castellino

7733 **Native form of renin in the kidney.**
Tadashi Inagami, Shigehisa Hirose, Kazuo Murakami, and Teruyoshi Matoba

7738 **Vitamin K-dependent carboxylation of peptide-bound glutamate. The active species of "CO_2" utilized by the membrane-bound preprothrombin carboxylase.**
John P. Jones, Edward J. Gardner, Terrance G. Cooper and Robert E. Olson

7743 **Lactoperoxidase-catalyzed iodination of horse cytochrome *c*:monoiodotyrosyl 74 cytochrome *c*.**
Neil Osheroff, Benjamin A. Feinberg, E. Margoliash, and M. Morrison

7752 **Sequence of the A-protein of coliphage MS2. I. Isolation of A-protein, determination of the NH_2- and COOH-terminal sequences, isolation and amino acid sequence of the tryptic peptides.**
Frank A. Nolf, Joël S. Vandekerckhove, Alfons K. Lenaerts, and Marc C. Van Montagu

7761 **Sequence of the A-protein of coliphage MS2. II. Isolation and sequence determination of chymotryptic peptides.**
Joël S. Vandekerckhove, Jan G. Gielen, and Marc C. Van Montagu

7773 **Sequence of the A-protein of coliphage MS2. III. Isolation and sequence determination of thermolytic peptides and soluble cyanogen bromide fragments: alignment of 363 amino acid residues of a total of 393.**
Joël S. Vandekerckhove and Marc C. Van Montagu

7783 **Complexing Rauscher leukemia virus reverse transcriptase with human plasma ribonuclease from Hodgkin's disease patients.**
Alok K. Bandyopadhyay, Carl C. Levy, and Michael R. Mardiney, Jr.

7788 **Study of the primary structures of the peptide core of bovine estrus cervical mucin. Possible existence of small similar subunits.**
Kandukuri S. P. Bhushana Rao and Pierre L. Masson

7796 **Rat liver glucose-6-P dehydrogenase. Dietary regulation of the rate of synthesis.**
Larry Winberry and Darold Holten

7802 **New stereochemical analogies between iron-sulfur electron transport proteins.**
Charles W. Carter, Jr.

7812 **Mechanism of palmityl Coenzyme A inhibition of liver glycogen synthase.**
Dhirayos Wititsuwannakul and Ki-Han Kim

7818 **Biochemical and immunological properties of *gag* gene-coded structural proteins of endogenous type C RNA tumor viruses of diverse mammalian species.**
John R. Stephenson, Roberta K. Reynolds, Sushilkumar G. Devare, and Fred H. Reynolds

7826 **Primary structure of a high potential iron-sulfur protein from a moderately halophilic denitrifying coccus.**
Siv M. Tedro, Terrance E. Meyer, and Martin D. Kamen

7834 **Nucleus-dependent regulation of tyrosine aminotransferase degradation in hepatoma tissue culture cells.**
Warner W. J.-W. Fan, Robert D. Ivarie, and Barbara B. Levinson

7842 **Initiator regions from the small size class of reovirus messenger RNA protected by rabbit reticulocyte ribosomes.**
Sondra G. Lazarowitz and Hugh D. Robertson

7850 **Periplasmic space in *Salmonella typhimurium* and *Escherichia coli*.**
Jeffry B. Stock, Barbara Rauch, and Saul Roseman

7862 **Sugar transport. A pleiotropic membrane mutant of *Salmonella typhimurium*.**
Pieter W. Postma, J. Christopher Cordaro, and Saul Roseman

7877 **Characterization of the proteolytic activation of pyruvate oxidase. Control by specific ligands and by the flavin oxidation-reduction state.**
Patricia Russell, Lowell P. Hager, and Robert B. Gennis

7883 **Lipid activation and protease activation of pyruvate oxidase. Evidence suggesting a common site of interaction on the protein.**
Patricia Russell, Herbert L. Schrock, and Robert B. Gennis

7888 ***In vitro* replication of mitochondrial DNA. Elongation of the endogenous primer sequence in D loop mitochondrial DNA by human DNA polymerase β.**
Duane C. Eichler, Teresa Shu-Fong Wang, David A. Clayton, and David Korn

7894 **The pathways of assimilation of $^{13}NH_4^+$ by the cyanobacterium *Anabaena cylindrica*.**
John C. Meeks, C. Peter Wolk, Joseph Thomas, Wolfgang Lockau, Paul W. Shaffer, Sam M. Austin, Wan-Shen Chien, and Aaron Galonsky

November 25, 1977

COMMUNICATIONS

7901 **Localization of the enzyme system for glycosylation of proteins via the lipid-linked pathway in rough endoplasmic reticulum.**
Ursula Czichi and William J. Lennarz

7905 **Parallel unmasking of latent adenylate cyclase and (Na^+,K^+)-ATPase activities in cardiac sarcolemmal vesicles. A new use of the channel-forming ionophore alamethicin.**
Henry R. Besch, Jr., Larry R. Jones, John W. Fleming, and August M. Watanabe

7909 **Activation of hepatic adenylate cyclase by guanyl nucleotides. Modeling of the transient kinetics suggests an "excited" state of GTPase is a control component of the system.**
Marc S. Rendell, Martin Rodbell, and Mones Berman

7913 **Kinetics of avian vitellogenin messenger RNA induction. Comparison between primary and secondary response to estrogen.**
Roger G. Deeley, David S. Udell, Alan T. H. Burns, Jeffrey I. Gordon, and Robert F. Goldberger

7916 **Incorporation of a naturally occurring fluorescent fatty acid into lipids of cultured mammalian cells.**
David A. Rintoul and Robert D. Simoni

7919 **Kinetics of soluble and collagen-bound aspartate aminotransferase: diffusional effects with a two-substrate enzymatic reaction.**
Jean-Marc Engasser, Pierre R. Coulet, and Danièle C. Gautheron

7923 **Comparison between purified α_2-macroglobulin preparations from normal controls and patients with cystic fibrosis. Kinetic and structural properties of the complex with bovine trypsin.**
Emmanuel Shapira, Christina L. Martin, and Henry L. Nadler

7930 **Quantitation of water-soluble acylcarnitines and carnitine acyltransferases in rat tissues.**
Y. R. Choi, P. J. Fogle, P. R. H. Clarke, and L. L. Bieber

7932 **Energy-dependent contraction of swollen heart mitochondria.**
Gerald P. Brierley, Marianne Jurkowitz, Edmundo Chávez, and Dennis W. Jung

7940 **Adenovirus deoxyribonucleic acid replication. Isolation of a soluble replication system and analysis of the *in vitro* DNA product.**
Tadashi Yamashita, Max Arens, and Maurice Green

7947 **Adenovirus deoxyribonucleic acid replication. Characterization of the enzyme activities of a soluble replication system.**
Max Arens, Tadashi Yamashita, Raji Padmanabhan, Takashi Tsuruo, and Maurice Green

7955 **Photodissociation of ligands from heme and heme proteins. Effect of temperature and organic phosphate.**
Wilma A. Saffran and Quentin H. Gibson

7959 **Human glutamine phosphoribosylpyrophosphate amidotransferase. Hysteretic properties.**
Sara C. Singer and Edward W. Holmes

7964 **GTP stimulates and inhibits adenylate cyclase in fat cell membranes through distinct regulatory processes.**
Hirohei Yamamura, Pramod M. Lad, and Martin Rodbell

7967 **Existence of a soluble thyrotropin binding component in normal human sera.**
George Lee, Salvatore M. Aloj, Francesco Beguinot, and Leonard D. Kohn

7971 **Immunological and chemical characterization of bovine preproinsulin.**
Peter T. Lomedico, Shu Jin Chan, Donald F. Steiner, and Grady F. Saunders

7979 **Glutarate semialdehyde dehydrogenase of *Pseudomonas*. Purification, properties, and relation to L-lysine catabolism.**
Yung Feng Chang and Elijah Adams

7987 **Factors influencing growth on L-lysine by *Pseudomonas*. Regulation of terminal enzymes in the δ-aminovalerate pathway and growth stimulation by α-ketoglutarate**
Yung Feng Chang and Elijah Adams

7992 **Lipid and polypeptide components of the crystalline yolk system from *Xenopus laevis*.**
Douglas H. Ohlendorf, Gary R. Barbarash, Anne Trout, Claudia Kent, and Leonard J. Banaszak

8002 **Effect of solutes on the cold-induced insolubility of monoclonal cryoimmunoglobulins.**
C. Russell Middaugh and Gary W. Litman

8007 **Cross-linking within a subunit of coupling factor 1 increases the proton permeability of spinach chloroplast thylakoids.**
Mark A. Weiss and Richard E. McCarty

8013 **Separation and allosteric properties of two forms of UDP-glucuronate carboxylyase.**
K. Varughese John, John S. Schutzbach, and Helmut Ankel

8018 ***Nereis* cuticle collagen. Isolation and properties of a large fragment resistant to proteolysis by bacterial collagenase.**
Shigeru Kimura and Marvin L. Tanzer

8023 **Preferential usage of tRNA isoaccepting species in collagen synthesis.**
Agamemnon Carpousis, Paul Christner, and Joel Rosenbloom

8027 **Exo-site affinity labeling of human thrombins. Similar labeling on the A chain and B chain/fragments of clotting α- and nonclotting γ/β-thrombins.**
David H. Bing, Michael Cory, and John W. Fenton, II

8035 **Reversible inactivation of L-amino acid oxidase. Properties of the three conformational forms.**
Christopher J. Coles, Dale E. Edmondson, and Thomas P. Singer

8040 **Structural study of circulating thymic factor: a peptide isolated from pig serum. I. Isolation and purification.**
Mireille Dardenne, Jean-Marie Pleau, Nguyen Khoa Man, and Jean-François Bach

8045 **Structural study of circulating thymic factor: a peptide isolated from pig serum. II. Amino acid sequence.**
Jean-Marie Pleau, Mireille Dardenne, Yves Blouquit, and Jean-François Bach

8048 **Human α_1-microglobulin. Purification procedure, chemi-**

cal and physicochemical properties.
Birgitta Ekström and Ingemar Berggård

8058 **On the mechanism of sodium- and potassium-activated adenosine triphosphatase. Time course of intermediary steps, examined by computer simulation of transient kinetics.**
Sven Mårdh and Staffan Lindahl

8062 **Reiteration frequency of the protamine genes in rainbow trout (*Salmo gairdneri*).**
Beatriz Levy W. and Gordon H. Dixon

8066 **Adenosine, cyclic AMP metabolism, and glycogenolysis in rat liver cells.**
John N. Fain and Raymond E. Shepherd

8071 **Carbon-13 nuclear magnetic resonance studies of cholesteryl esters and cholesteryl ester/triglyceride mixtures.**
James A. Hamilton, Norman Oppenheimer, and Eugene H. Cordes

8081 **Kynuramine, a fluorescent substrate and probe of plasma amine oxidase.**
John B. Massey and Jorge E. Churchich

8085 **Calorimetric studies of the ADP binding to myosin subfragment 1, heavy meromyosin, and to myosin filaments.**
Takao Kodama, Ian D. Watson, and Roger C. Woledge

8088 **Stabilization of adenylate energy charge and its relation to human sperm motility.**
Montri Chulavatnatol and Audomsark Haesungcharen

8092 **Hydrogen exchange study of membrane-bound rhodopsin. I. Protein structure.**
Nancy W. Downer and S. Walter Englander

8101 **Hydrogen exchange study of membrane-bound rhodopsin. II. Light-induced protein structure change.**
Nancy W. Downer and S. Walter Englander

8105 **Isolation and characterization of trypsin inhibitor from opaque-2 corn seeds.**
Michel J. Swartz, Howard L. Mitchell, David J. Cox, and Gerald R. Reeck

8108 **Interaction of anions with iron·transferrin·chelate complexes.**
Terry B. Rogers, Robert E. Feeney, and Claude F. Meares

8113 **Stereochemistry of the dTDP-glucose oxidoreductase reaction.**
Carl E. Snipes, Gert-Ulf Brillinger, Laurel Sellers, Leonard Mascaro, and Heinz G. Floss

8118 **Ribosomal RNA genes of *Saccharomyces cerevisiae*. I. Physical map of the repeating unit and location of the regions coding for 5 S, 5.8 S, 18 S, and 25 S ribosomal RNAs.**
Graeme I. Bell, Louis J. DeGennaro, David H. Gelfand, Robert J. Bishop, Pablo Valenzuela, and William J. Rutter

8126 **Ribosomal RNA genes of *Saccharomyces cerevisiae*. II. Physical map and nucleotide sequence of the 5 S ribosomal RNA gene and adjacent intergenic regions.**
Pablo Valenzuela, Graeme I. Bell, Alejandro Venegas, Elaine T. Sewell, Frank R. Masiarz, Louis J. DeGennaro, Fanyela Weinberg, and William J. Rutter

8136 **Asymmetry of binding and physical assignments of CTP and ATP sites in aspartate transcarbamoylase.**
Peter Suter and Jurg P. Rosenbusch

8142 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora*. IV. The COOH-terminal 669 residues of the peptide chain; comparison with other glutamate dehydrogenases.**
Brian M. Austen, Margaret E. Haberland, Joseph F. Nyc, and Emil L. Smith

8150 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora*. V. Tryptic peptides.**
Yair Degani, Ronald G. Duggleby, Joseph F. Nyc, and Emil L. Smith

8160 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora*. VI. Isolation and sequences of eighteen fragments from the cyanogen bromide digest.**
Brian M. Austen, Joseph F. Nyc, and Emil L. Smith

8174 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora*. VII. Isolation and sequences of three large cyanogen bromide peptides.**
Brian M. Austen and Emil L. Smith

8182 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora*. VIII. Isolation and sequences of peptides from a tryptic hydrolysate of the maleylated protein.**
Brian M. Austen, Joseph F. Nyc, Douglas M. Brown, and Emil L. Smith

8196 **Nicotinamide adenine dinucleotide-specific glutamate dehydrogenase of *Neurospora crassa*. IX. Isolation and sequences of several large cyanogen bromide peptides.**
Margaret E. Haberland and Emil L. Smith

8206 **Interaction of receptor·estrogen complex (R·E) with uterine nuclei.**
R. Enzio Müller, Abdulmaged M. Traish, and Herbert H. Wotiz

8212 **Identification of a pyruvoyl residue in *S*-adenosylmethionine decarboxylase from *Saccharomyces cerevisiae*.**
Murray S. Cohn, Celia White Tabor, and Herbert Tabor

8217 **Mouse liver metallothioneins. Complete amino acid sequence of metallothionein-1.**
I-Yih Huang, Akira Yoshida, Hajime Tsunoo, and Hiroshi Nakajima

8222 **Circular dichroism studies on native and artificial horseradish peroxidases.**
Per-Ingvar Ohlsson, Karl-Gustav Paul, and Ingvar Sjöholm

8229 **Trypsin-induced changes in the orientation of latent ATPase in protoplast ghosts from *Mycobacterium phlei*.**
Hidehiko Nakagawa, Soon-Ho Lee, Vijay K. Kalra, and Arnold F. Brodie

8235 **Resolution of two deoxynucleoside kinases from *Lactobacillus acidophilus* R-26 by Blue Sepharose affinity chromatography.**
Martin R. Deibel, Jr. and David H. Ives

8240 **Deoxynucleoside kinases from *Lactobacilli*. Separate interacting sites for deoxycytidine and deoxyadenosine.**
Martin R. Deibel, Jr., Richard B. Reznik, and David H. Ives

8245 **Nucleotide sequence of an arginine transfer ribonucleic acid from bacteriophage T4.**
Gail P. Mazzara, J. G. Seidman, William H. McClain, Harry Yesian, John Abelson, and Christine Guthrie

8254 **U-G-A suppressor of bacteriophage T4 associated with arginine transfer RNA.**
Shao-hui Kao and William G. McClain

8258 **Preliminary crystallographic investigations of two phycobiliproteins.**
Robert M. Sweet, Herbert E. Fuchs, Richard G. Fisher, and Alexander N. Glazer

8261 **A model for the structure of bovine parathormone derived by dark field electron microscopy.**
A. Max Fiskin, David V. Cohn, and George S. Peterson

8269 **Heterogeneity in nucleosome spacing.**
Debra Z. Martin, Richard D. Todd, Dimitrij Lang, Phyllis N. Pei, and William T. Garrard

8278 **Digitonin-induced changes in subunit arrangement in relation to some *in vitro* activities of the (Na^+,K^+)-ATPase.**
Shu-Mei Liang and Charles G. Winter

8285 **Purification and characterization of myosin from bovine thyroid.**
Ryoji Kobayashi, Robert D. Goldman, D. J. Hartshorne, and James B. Field

8292 **Properties of cultured chondrocytes obtained from histologically distinct zones of the chick embryo tibiotarsus.**
Jung Ja Kim and H. Edward Conrad

8300 **Comparative biochemistry of non-muscle actins.**
David J. Gordon, James L. Boyer, and Edward D. Korn

8310 **Primary activation of the vitellogenin gene in the rooster.**
Roger G. Deeley, Jeffrey I. Gordon, Alan T. H. Burns, Kathleen P. Mullinix, Minou Bina-Stein and Robert F. Goldberger

8320 ***In vitro* translation of avian vitellogenin messenger RNA.**
Jeffrey I. Gordon, Roger G. Deeley, Alan T. H. Burns, Bruce M. Paterson, James L. Christmann, Robert F. Goldberger

COMMUNICATIONS

8329 ***Acanthamoeba*** **cofactor protein is a heavy chain kinase required for actin activation of the Mg^{2+}-ATPase activity of *Acanthamoeba* myosin I.**
Hiroshi Maruta and Edward D. Korn

8333 **Aurovertin binds to the β subunit of yeast mitochondrial ATPase.**
Michael G. Douglas, Youh Koh, Michael E. Dockter, and Gottfried Schatz

8336 **Role of the carbohydrate moiety in determining the survival of interferon in the circulation.**
Sikta Bose and Jean Hickman

8338 **Biotin carboxylation—concerted or not concerted? That is the question!**
JoAnne Stubbe and Robert H. Abeles

8341 **Purification and reconstitution of the adipocyte plasma membrane D-glucose transport system.**
Michael F. Shanahan and Michael P. Czech

8344 **Inhibition of ribulose-1,5-bisphosphate carboxylase/oxygenase by xylulose 1,5-bisphosphate.**
Stephen D. McCurry and N. E. Tolbert

8347 **Chloroplast biogenesis. Net synthesis of protochlorophyllide from protoporphyrin IX by developing chloroplasts.**
James R. Mattheis and Constantin A. Rebeiz

8350 **Intermediate steps in the degradation of a specific abnormal protein in *Escherichia coli*.**
Joel D. Kowit and Alfred L. Goldberg

8358 **Influence of the heterosaccharides in porcine pancreatic ribonuclease on the conformation and stability of the protein.**
Fung-Fang Chen Wang and C. H. W. Hirs

8365 **Protein phosphorylation in nuclei of adrenal medulla incubated with cyclic adenosine 3′:5′-monophosphate-dependent protein kinase.**
De-Maw Chuang, Robert A. Hollenbeck, and Erminio Costa

8374 **Kinetic and conformational studies of the orotate phosphoribosyltransferase:orotidine-5′-phosphate decarboxylase enzyme complex from mouse Ehrlich ascites cells.**
Thomas W. Traut and Mary Ellen Jones

8382 **Isolation of the human ATP-creatine transphosphorylases (creatine phosphokinases) from tissues of patients with Duchenne muscular dystrophy.**
Stephen A. Kuby, Hans J. Keutel, Keiichiro Okabe, Hans K. Jacobs, Fred Ziter, Dorothy Gerber, and Frank H. Tyler

8391 **Kinetics for the secretion of procollagen by freshly isolated tendon cells.**
Winston Whei-Yang Kao, Richard A. Berg, and Darwin J. Prockop

8398 **Messenger RNA for renal phosphoenolpyruvate carboxykinase (GTP). Its translation in a heterologous cell-free system and its regulation by glucocorticoids and by changes in acid-base balance.**
Patrick B. Iynedjian and Richard W. Hanson

8404 **Quantitative correlation of glucose uptake and phosphorylation with the activities of glucose-phosphorylating enzymes in perfused livers of fasted and fed rats.**
Frederick L. Alvares and Robert C. Nordlie

8415 **Physicochemical properties of rat testis Ca^{2+}-dependent regulator protein of cyclic nucleotide phosphodiesterase. Relationship of Ca^{2+}-binding, conformational changes, and phosphodiesterase activity.**
John R. Dedman, James D. Potter, Richard L. Jackson, J. David Johnson, and Anthony R. Means

8423 **Residual esterase activity of lima bean inhibitor-binding anhydrochymotrypsin preparations.**
Michael S. Matta, Patricia A. Henderson, Henry D. Drew, Antony C. Wilbraham, John G. Benitez, Jackquline M. Mudd, and David K. North

8428 **Kinetics of estrogen induction of *Xenopus laevis* vitellogenin messenger RNA as measured by hybridization to complementary DNA.**
Hollis J. Baker and David J. Shapiro

8435 **Developmentally regulated proteases from the basidiomycete *Schizophyllum commune*.**
Marvin N. Schwalb

8440 **A new iron-sulfur flavoprotein of the respiratory chain. A component of the fatty acid β oxidation pathway.**
Frank J. Ruzicka and Helmut Beinert

8446 **Disposition of proteins and aminophospholipids in the sarcoplasmic reticulum membrane.**
Cecilia Hidalgo and Noriaki Ikemoto

8455 **Thermodynamics of oxidative phosphorylation in bovine heart submitochondrial particles.**
William S. Thayer, Yen-sheng L. Tu, and Peter C. Hinkle

8459 **Thermodynamics of the electrochemical proton gradient in bovine heart submitochondrial particles.**
C. Lindsay Bashford and William S. Thayer

8464 **Immunochemical studies of fragments of bovine serum albumin.**
Theodore Peters, Jr., Richard C. Feldhoff, and Roberta G. Reed

8469 **Quantitation of rat α-fetoprotein messenger RNA with a complementary DNA probe.**
Michael A. Innis and David L. Miller

8476 **Modification of (Na^+,K^+)-ATPase function by purified antibodies to the holoenzyme. Effects on enzyme activity and [^{3}H]ouabain binding.**
Lloyd Michael, Earl T. Wallick, and Arnold Schwartz

8481 **Kinetics of the activation of bovine coagulation Factor X by components of the extrinsic pathway. Kinetic behavior of two-chain Factor VII in the presence and absence of tissue factor.**
Sodonie A. Silverberg, Yale Nemerson, and Margalit Zur

8489 **Importance of initiation factor preparations in the translation of reovirus and globin mRNAs lacking a 5′-terminal 7-methylguanosine.**
William A. Held, Katrine West, and John F. Gallagher

8498 **Priming of deoxyribonucleic acid synthesis on phage fd and ϕX174 templates by oligoribonucleotides contaminating nucleoside 5′-triphosphates.**
Yukito Masamune and Charles C. Richardson

8504 **Regulation of *Salmonella* phosphoribosylpyrophosphate synthetase activity *in vivo*. Deductions from pool measurements.**
William C. Sadler and Robert L. Switzer

8512 **Measurement of glucose 6-phosphate penetration into liver microsomes. Confirmation of substrate transport in the glucose-6-phosphatase system.**
Lawrence M. Ballas and William J. Arion

8519 **A comparison of the utilization rates, and hormone-releasing actions of glucose, mannose, and fructose in isolated pancreatic islets.**
Walter S. Zawalich, Robert Rognstad, Anthony S. Pagliara, and Franz M. Matschinsky

8524 **Photochemical cross-linking of cell membranes. A test for natural and random collisional cross-links by millisecond cross-linking.**
Douglas J. Kiehm and Tae H. Ji

8532 **Dissociation equilibrium constant of β nerve growth factor.**
Mark A. Bothwell and Eric M. Shooter

8537 **Studies on the mechanism of ozone inactivation of erythrocyte membrane $(Na^+ + K^+)$-activated ATPase.**
Phillip C. Chan, Robert J. Kindya, and Leo Kesner

8542 **Schiff base adducts of hemoglobin. Modifications that inhibit erythrocyte sickling.**
Robert H. Zaugg, Joseph A. Walder, and Irving M. Klotz

8549 **Covalent structure of the membranous segment of horse cytochrome b_5. Chemical cleavage of the native hemoprotein.**
Juris Ozols and Craig Gerard

8554 **Singlet oxygen as a mediator in the hematoporphyrin-catalyzed photooxidation of NADPH to $NADP^+$ in deuterium oxide.**
Richard S. Bodaness and Phillip C. Chan

8561 **A novel ketone monooxygenase from *Pseudomonas cepacia*. Purification and properties.**
Larry N. Britton and Allen J. Markovetz

8567 **Effect of temperature on the Ca^{2+} transport ATPase of sarcoplasmic reticulum.**
Hatisaburo Masuda and Leopoldo de Meis

8572 **Metabolism of dog gastric mucosa. Levels of glycolytic, citric acid cycle and other intermediates.**
Henry M. Sarau, James J. Foley, George Moonsammy, and George Sachs

8582 **An *ecf* mutation in *Escherichia coli* pleiotropically affecting energy coupling in active transport but not generation or maintenance of membrane potential.**
Jen-shiang Hong

8589 **Subunit structure of the acetylcholine receptor from denervated rat skeletal muscle.**
Stanley C. Froehner, C. Gary Reiness, and Zach W. Hall

8597 **Studies on the metabolism of the renal glomerular basement membrane. Turnover measurements in the rat with the use of radiolabeled amino acids.**
Robert G. Price and Robert G. Spiro

8603 **Role of deoxycytidylate deaminase in deoxyribonucleotide synthesis in bacteriophage T4 DNA replication.**
Che-Shen Chiu, Therese Ruettinger, James B. Flanegan, and G. Robert Greenberg

8609 **Purification and properties of an endo-α-*N*-acetyl-D-galactosaminidase from *Diplococcus pneumoniae*.**
Junji Umemoto, Veerasingham P. Bhavanandan, and Eugene A. Davidson

8615 **Systematic purification of five glycosidases from *Streptococcus* (*Diplococcus*) *pneumoniae*.**
Lowrie R. Glasgow, James C. Paulson, and Robert L. Hill

8624 **Reactivation of asialo-rabbit liver binding protein by resialylation with β-D-galactoside α2 → 6 sialyltransferase.**
James C. Paulson, Robert L. Hill, Tadashi Tanabe, and Gilbert Ashwell

8629 **α-Bungarotoxin binding and cholinergic receptor function on a rat sympathetic nerve line.**
Jim Patrick and Bill Stallcup

8634 **An ultracentrifugal study of the self-association of canine apolipoprotein A-I in solution.**
Ta-lee Teng, Celina Edelstein, Donald L. Barbeau, and Angelo M. Scanu

8639 **Studies on cobalt myoglobins and hemoglobins. Electron paramagnetic resonance investigation of iron-cobalt hybrid hemoglobins and its implication for the heme-heme interaction and for the alkaline Bohr effect.**
Masao Ikeda-Saito, Haruhiko Yamamoto, and Takashi Yonetani

8645 **α-Adrenergic-mediated accumulation of adenosine 3′:5′-monophosphate in calcium-depleted hepatocytes.**
Timothy M. Chan and John H. Exton

8652 **An endonuclease activity of venom phosphodiesterase specific for single-stranded and superhelical DNA.**
Arthur E. Pritchard, David Kowalski, and M. Laskowski, Sr.

8660 **Membrane potential-dependent binding of scorpion toxin to the action potential Na^+ ionophore. Studies with a toxin derivative prepared by lactoperoxidase-catalyzed iodination.**
William A. Catterall

8669 **Activation of the action potential Na^+ ionophore by neurotoxins. An allosteric model.**
William A. Catterall

8677 **Studies on the mode of action of calciferol. Effects of dietary calcium and phosphorus on the relationship between the 25-hydroxyvitamin D_3-1α-hydroxylase and production of chick intestinal calcium binding protein.**
Ernest J. Friedlander, Helen L. Henry, and Anthony W. Norman

8684 **Changes in phospholipids of *Saccharomyces cerevisiae* associated with inositol-less death.**
Gerald W. Becker and Robert L. Lester

8692 **Muscarinic acetylcholine receptors in developing chick heart.**
Jonas B. Galper, William Klein, and William A. Catterall

8700 **Mechanism of T5-induced DNA polymerase. I. Replication of short primer templates.**
Shishir K. Das and Robert K. Fujimura

8708 **Mechanism of T5-induced DNA polymerase. II. Characterization of the dead-end complex.**
Shishir K. Das and Robert K. Fujimura

8713 **Characterization of human thyroxine-binding globulin. Evidence for a single polypeptide chain.**
Marvin C. Gershengorn, Sheue-Yann Cheng, Roland E. Lippoldt, Richard S. Lord, and Jacob Robbins

8719 **Structure and stability of human thyroxine-binding globulin.**
Marvin C. Gershengorn, Roland E. Lippoldt, Harold Edelhoch, and Jacob Robbins

8724 ***Neurospora crassa* glutamine synthetase. Role of enzyme synthesis and degradation on the regulation of enzyme concentration during exponential growth.**
Carmen Quinto, Jaime Mora, and Rafael Palacios

8728 **Crystallization and preliminary crystal data of porcine pepsinogen.**
S. Narasinga Rao, Stanley N. Koszelak, and Jean A. Hartsuck

8731 **Biochemical properties of subsarcolemmal and interfibrillar mitochondria isolated from rat cardiac muscle.**
June W. Palmer, Bernard Tandler, and Charles L. Hoppel

8740 **A sensitive endonuclease probe for lesions in deoxyribonucleic acid helix structure produced by carcinogenic or mutagenic agents.**
Randy J. Legerski, Horace B. Gray, Jr., and Donald L. Robberson

8747 **Coupling factor ATPase-complex of *Rhodospirillum rubrium*. Purification and properties of a reconstitutively active single subunit.**
Sonia Philosoph, Andres Binder, and Zippora Gromet-Elhanan

8753 **Transcription of specific adenovirus genes in isolated nulei by exogenous RNA polymerases.**
Judith A. Jaehning and Robert G. Roeder

8762 **Purification, properties and subunit structure of deoxyribonucleic acid-dependent ribonucleic acid polymerase III from uninfected and adenovirus 2-infected KB cells.**
Judith A. Jaehning, Paula S. Woods, and Robert G. Roeder

ADDITIONS AND CORRECTIONS

8772 **Transformation of arachidonic acid and homo-α-linolenic acid by rabbit polymorphonuclear leukocytes. Monohydroxy acids from novel lipoxygenases. Vol. 251 (1976) 7816–7820.**
Pierre Borgeat, Mats Hamberg, and Bengt Samuelsson

8772 **Active amino acid transport in plasma membrane vesicles from simian virus 40-transformed mouse fibroblasts. Characteristics of electrochemical Na^+ gradient-stimulated uptake. Vol. 252 (1977) 1990–1997.**
Julia E. Lever

8772 **Sidedness of (sodium, potassium)-adenosine triphosphatase of inside-out red cell membrane vesicles. Interactions with potassium. Vol. 252 (1977) 3035–3043.**
Rhoda Blostein and Lily Chu

8772 **Phosphorylation of yeast DNA-dependent RNA polymerases *in vivo* and *in vitro*. Isolation of enzymes and identification of phosphorylated subunits. Vol. 252 (1977) 3082–3091.**
Graeme I. Bell, Pablo Valenzuela, and William J. Rutter

8773 **Characterization of *Escherichia coli* mutant incapable of maintaining a transmembrane potential. *metC* ecf*^{ts} mutations. Vol. 252 (1977) 4056–4067.**
Michael A. Lieberman, Marcia Simon, and Jen-shiang Hong

8773 **Properties and subunit structure of asparto kinase II from *Bacillus subtilis* VB217. Vol. 252 (1977) 4648–4654.**
Don Moir and Henry Paulus

8773 **GDP-mannose-polyprenyl phosphate mannosyltransferases of the retina. Vol. 252 (1977) 5622–5629.**
Edward L. Kean

8773 **The RNA-dependent DNA polymerase of avian sarcoma virus B77. Binding of viral and nonviral ribonucleic acids**

to the α, β_2, and $\alpha\beta$ forms of the enzyme. Vol. 252 (1977) 6878–6884.
Amnon Hizi, Jonathan P. Leis, and Wolfgang K. Joklik

8774 **An infrared study of CO binding to heart cytochrome *c* oxidase and hemoglobin A. Implications re O_2 reactions. Vol. 252 (1977) 5498–5508.**
Shinya Yoshikawa, Miles G. Choc, Mary C. O'Toole, and Winslow S. Caughey

8774 ***In vitro* synthesis of a DNA probe for antisense globin sequences. Vol. 252 (1977) 5606–5608.**
Stuart H. Orkin

December 25, 1977

COMMUNICATIONS

8775 **Substrate-induced conformational changes in lactate dehydrogenase. Proteolysis of the immobilized enzyme in the presence of specific substrates.**
Garfield P. Royer, Sei-ichiro Ikeda, and Timothy K. Lee

8778 **Conformational relaxations of urea- and guanidine hydrochloride-unfolded ferricytochrome *c*.**
Tian Yow Tsong

8781 **Prevention of NH_2-terminal acetylation of proteins synthesized in cell-free systems.**
Richard D. Palmiter

8784 **Can an antibody combining site be mimicked synthetically? The possible surface simulation synthesis of two antibody-combining sites complementary to two antigenic sites of lysozyme.**
M. Zouhair Atassi and Wanda Zablocki

8788 **Cytochrome P-450 of adrenal mitochondria. Steroid binding sites on two distinguishable forms of rat adrenal mitochondrial cytochrome $P\text{-}450_{scc}$.**
Colin R. Jefcoate

8797 **Modification of membrane lipid. Functional properties of membrane in relation to fatty acid structure.**
Joseph J. Baldassare, George M. Brenckle, Michael Hoffman, and David F. Silbert

8804 **Rates of initiation of protein synthesis by two purified species of vesicular stomatitis virus messenger RNA.**
Harvey F. Lodish and Susan Froshauer

8812 **Effects of the steroid sex hormone, antheridiol, on the initiation of RNA synthesis in the simple eukaryote, *Achlya ambisexualis*.**
Robert B. Sutherland and Paul A. Horgen

8821 **Peptide analysis of a glycoprotein form of adrenocorticotropic hormone.**
Betty A. Eipper and Richard E. Mains

8833 **Human adipose tissue maintained in a continuous flow system. Kinetic studies of glycerol release in response to noradrenaline and evidence for the formation of a hormone antagonist.**
Lars Sjöström, Ulf Smith, Per Björntorp, Bo Jacobsson, and Per Hallgren

8840 **A crystallographic study of the structure of glycyl-L-alaninatocopper(II) hydrate and the conformations of copper(II)·dipeptide complexes.**
Hans C. Freeman, Michael J. Healy, and Marcia L. Scudder

8848 **Characterization of ribonuclease H activity associated with yeast RNA polymerase A.**
Janine Huet, Jean-Marie Buhler, André Sentenac, and Pierre Fromageot

8856 **Estradiol-binding kinetics of the activated and nonactivated estrogen receptor.**
Barry M. Weichman and Angelo C. Notides

8863 **Failure of cultured chick embryo fibroblasts to incorporate collagen into their extracellular matrix when transformed by Rous sarcoma virus. An effect of transformation but not of virus production.**
Bradley W. Arbogast, Makoto Yoshimura, Nicholas A. Kefalides, Howard Holtzer, and Akira Kaji

8869 **Effect of gonadotropin-induced receptor regulation on biological responses of isolated rat luteal cells.**
Marco Conti, James P. Harwood, Maria L. Dufau, and Kevin J. Catt

8875 **Re-examination of the charge relay system in subtilisin and comparison with other serine proteases.**
David A. Matthews, Richard A. Alden, Jens J. Birktoft, Stephan T. Freer, and Joseph Kraut

8884 **Production, purification, and characterization of excitability-inducing molecule.**
Josef Bukovsky

8890 **Properties of a phosphoenolpyruvate:mannitol phosphotransferase system in *Spirochaeta aurantia*.**
Milton H. Saier, Jr., Michael J. Newman, and Ada W. Rephaeli

8899 **Sugar phosphate:sugar transphosphorylation and exchange group translocation catalyzed by the Enzyme II complexes of the bacterial phosphoenolpyruvate:sugar phosphotransferase system.**
Milton H. Saier, Jr., Brigitte U. Feucht, and William K. Mora

8908 **Sugar phosphate:sugar transphosphorylation coupled to exchange group translocation catalyzed by the Enzyme II complexes of the phosphoenolpyruvate:sugar phosphotransferase system in membrane vesicles of *Escherichia coli*.**
Milton H. Saier, Jr., David F. Cox, and Edward G. Moczydlowski

8917 **An immunochemical homology between the Aα and a D·E complex-dependent site of the γ chains of fibrinogen.**
Czeslaw Cierniewski, Edward F. Plow, and Thomas S. Edgington

8924 **Interconversion of active and inactive forms of rat liver hydroxymethyglutaryl-CoA reductase.**
Jeffrey L. Nordstrom, Victor W. Rodwell, and Jonathan J. Mitschelen

8935 **DNA binding, condensing and unwinding properties of yeast RNase H_1.**
Sybille Dezelee, Françoise Wyers, Jean-Luc Darlix, André Sentenac, and Pierre Fromageot

8945 **Purification and some novel properties of *Escherichia coli* RNase II.**
Radhey Shyam Gupta, Takashi Kasai, and David Schlessinger

8950 **Exoribonucleases in wild type *Escherichia coli* and RNase II-deficient mutants.**
Takashi Kasai, Radhey Shyam Gupta, and David Schlessinger

8957 **Demonstration of the hydrophilic character of adenylate cyclase following hydrophobic resolution on immobilized alkyl residues. Critical role of alkyl chain length.**
Charles J. Homcy, Simeon M. Wrenn, and Edgar Haber

8965 **Mechanism of porphobilinogen synthase. Possible role of essential thiol groups.**
Graham F. Barnard, Roichi Itoh, Leslie H. Hohberger, and David Shemin

8975 **Inhibition of sterol biosynthesis in L cells and mouse liver cells by 15-oxygenated sterols.**
George J. Schroepfer, Jr., Edward J. Parish, Harry W. Chen, and Andrew A. Kandutsch

8981 **Cytosolic receptor for aryl hydrocarbon hydroxylase induction by polycyclic aromatic compounds. Evidence for structural and regulatory variants among established cell culture lines.**
Thomas M. Guenthner and Daniel W. Nebert

8990 **Arylazido-β-alanine NAD^+, an NAD^+ photoaffinity analogue. Preparations and properties.**
Shiuan Chen and Richard J. Guillory

9002 **Hormonal regulation of testicular LH receptors. Effects on cyclic AMP and testosterone responses in isolated Leydig cells.**
Tsuneo Tsuruhara, Maria L. Dufau, Selva Cigorraga, and Kevin J. Catt

9010 **Translation of the L-species dsRNA genome of the killer-associated virus-like particles of *Saccharomyces cerevisiae*.**

James E. Hopper, Keith A. Bostian, Lucy B. Rowe, and Donald J. Tipper

9018 **Impaired intracellular migration and altered solubility of nonglycosylated glycoproteins of vesicular stomatitis virus and Sindbis virus.**
Randi Leavitt, Sondra Schlesinger, and Stuart Kornfeld

9024 **Reconstitution studies show that rifampicin resistance is determined by the largest polypeptide of *Bacillus subtilis* RNA polymerase.**
Shirley M. Halling, Kenneth C. Burtis, and Roy H. Doi

9032 **Studies of low molecular weight RNA from cells infected with adenovirus 2. I. The sequences at the 3′ end of VA-RNA I.**
Maria L. Celma, Julian Pan, and Sherman M. Weissman

9043 **Studies of low molecular weight RNA from cells infected with adenovirus 2. II. Heterogeneity at the 5′ end of VA-RNA I.**
Maria L. Celma, Julian Pan, and Sherman M. Weissman

9047 **Studies of low molecular weight RNA from cells infected with adenovirus 2. III. The sequence of the promoter for VA-RNA I.**
Julian Pan, Maria L. Celma, and Sherman M. Weissman

9055 **Resolution of the multiplicity of the glutamate and aspartate transport systems of *Escherichia coli*.**
Gerard D. Schellenberg and Clement E. Furlong

9065 **Evolutionary microdivergence of chick and rat liver ribosomal proteins.**
Hans-Peter R. Ramjoué and Julian Gordon

9071 **Isolation of eukaryotic ribosomal proteins. Purification and characterization of the 40 S ribosomal subunit proteins Sa, Sc, S3a, S3b, S5′, S9, S10, S11, S12, S14, S15, S15′, S16, S17, S18, S19, S20, S21, S26, S27′, and S29.**
Ekkehard Collatz, Norbert Ulbrich, Kunio Tsurugi, Haideh N. Lightfoot, Walter MacKinlay, Alan Lin, and Ira G. Wool

ADDITIONS AND CORRECTIONS

9081 **Function of initiation factor 1 in the binding and release of initiation factor 2 from ribosomal initiation complexes in *Escherichia coli*. Vol. 252 (1977) 1739–1744.**
Evan A. Stringer, Probir Sarkar, and Umadas Maitra

9081 **Characterization of polypeptides associated with messenger RNA and its polyadenylate segment in Ehrlich ascites messenger ribonucleoprotein. Vol. 252 (1977) 3525–3532.**
William R. Jeffery

9081 **Induction of different rat liver supernatant aldehyde dehydrogenases by phenobarbital and tetrachlorodibenzo-*p*-dioxin. Vol. 252 (1977) 6169–6176.**
Richard A. Deitrich, Pequita Bludeau, Thomas Stock, and Michael Roper

9081 **Cyclic AMP-binding proteins and protein kinase during regression of Walker 256 mammary carcinoma. Vol. 252 (1977) 6342–6348.**
Yoon Sang Cho-Chung, Timothy Clair, and Rochelle Porper

9082 **Organization of the yeast ribosomal RNA gene cluster via cloning and restriction analysis. Vol. 252 (1977) 6562–6571.**
Kamalendu Nath and Arthur P. Bollon

9082 **The self-association of apolipoprotein A-II from plasma high density lipoproteins of rhesus monkey (*Macaca mulatta*). Vol. 252 (1977) 6745–6749.**
Donald L. Barbeau, Ta-lee Teng, and Angelo M. Scanu

9082 **Transformation of arachidonic acid and homo-γ-linolenic acid by rabbit polymorphonuclear leukocytes. Monohydroxy acids from novel lipoxygenases. Vol. 251 (1976) 7816–7820.**
Pierre Borgeat, Mats Hamberg, and Bengt Samuelsson

Author Index 9083

Subject Index 9093

Volume Contents iii